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EDITORIAL.

In the first article Mr. Terman discusses, largely from questionnaire data, the subject of social leadership. He finds this well represented among animals who post their sentinels, and imitate and take suggestions. In primitive races leadership is, of course, strongly developed in all tribal organizations, while in children, leaders on the playground, in the class, in dress and fashion, in athletics and strength, exercise very great influence. The characteristics of the leader, who often becomes domineering and selfish, are described, and in some gangs he becomes actually criminal. The passion for leadership is one of the strongest instincts. Sometimes it is represented in bluffing. The author also finds as the opposite of the leader the outcast. These are teasers, children of selfish and slovenly habits, or ugly, peevish, dull, complaining, spiteful, conceited and without spirit, so that every child's society has its pariahs, who are generally let alone.

Dr. and Mrs. Chamberlain have observed with great care their own child for several years and have grouped under twenty-three heads the general results of their observations. Quite interesting among these studies, which are largely philological, are the child's crude attempts at definition, its *obiter dicta*, and its spontaneous poems of which a score of samples are given.

Dr. Theodate L. Smith has given us a brief description of the Japanese Women's University, based very largely upon information supplied by its Dean, Professor Aso, upon a recent visit to Clark University, and also upon data translated by Mr. Kuma, a Fellow in the University.

Dr. Burnham has summed up an account of the recent progress in the hygiene of teaching, including the conditions of mental work, especially those of the normal school, based upon a questionnaire addressed to the latter.

Professor W. S. Monroe prints the result of an experimental study on the Perception of Children. The diagrams indicate various dominant lines of interest, showing that with younger children color and use predominate and that form, size, and substance are comparatively insignificant until about the tenth year. He also finds that the curve of color interest in girls progresses more steadily than in the case of boys. He adds a valuable bibliography.

Dr. Chamberlain sums up the recent progress of child study and related topics in Italian scientific literature, and in a subsequent article in Russian literature, to both of which bibliographies are appended.

The usual account of literature follows, and the index to the volume.

A PRELIMINARY STUDY IN THE PSYCHOLOGY AND PEDAGOGY OF LEADERSHIP.

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I. SCOPE OF THE SUBJECT.

Leadership is interesting from many points of view. In the first place there are two opposite poles of thought with regard to what it counts for in the progress from savagery to civilization. Some credit only the leaders as a factor in race progress, others only the masses.

The former tendency, of which Carlyle is a good exponent, has been most common in the past. Until recently, histories were little more than chronicles of wars and court intrigues. In reading such histories we forget that there were in those days other people than generals, kings, and nobles, with here and there a philosopher or religious reformer. Emerson viewed all institutions as "the lengthened shadows of one man." Carlyle defines history as "nothing but the biographies of a few great men." [1]

In a different form, the question of leadership is the crucial question of economics. We are infinitely better provided with material comforts than was primitive man. The task here is

[1] *Vide* Mallock: Aristocracy and Evolution, 1902.

to decide what factors have contributed most to this advance. Thereon depends the justness or oppression of the distributive process. If the masses are powerless in themselves to accomplish anything, then we should welcome any evidence in favor of the "Subsistence Theory." On the other hand, Karl Marx and his followers assert that the *laborers* create everything, and that the captain of industry is truly a captain of exploitation.

Again, to express our thoughts, we use an intricately complicated set of symbols which none of us could have invented. We employ them without serious or sudden alteration. We fashion our clothes, our houses, and even our politics and religion after patterns which are already given. On such consideration, it is evident why Tarde, having asked the question, what is society, should have answered it thus, briefly, "c'est l'imitation." On the other hand it must be remembered that without something original to imitate, there can be no advance. As James puts it, there are two legs on which society walks: invention and imitation.

Though this study cannot concern itself with the details of the psychology of imitation or invention, and much less with their broader historical, economical, and sociological relations, it may yet be of value to take a bird's-eye view of some of the larger aspects of the subject.

If Tarde's claim for an "Inter-psychology" is warranted,[1] a large share of the work devoted to it must, either nearly or remotely, concern leadership. Broadly conceived, so as to include every form of attraction and repulsion, it is the chief fact of social life. Each member of society is both a leader and a follower, though predominantly, either one or the other. It comes, consciously or unconsciously, into every case of human relation.

At the beginning of every such relation there is an incipient duel, fought silently, but none the less decisive. It may be the remnant of an old instinct once of vital importance to the life of the anthropoid, namely, the tendency to evaluate instantly and accurately as regards possible injury or service every other animal happened upon. Does not this very thing survive in our relations with one another? We "take the measure" of every man we meet. We "size him up," or "plot his curve," and whether or not we like to own it, to a certain extent we regulate our actions toward that one accordingly. If we judge ourselves superior, conduct takes on characteristic forms according to the occasion and our own nature: for example, haughtiness, imperiousness, condescension, the air of self importance, the instructive tone, etc. On the other hand, if we

[1] *Vide* International Quarterly, 1903. Inter-Psychology.

judge ourselves inferior there is present a feeling of timidity, a less confident heart-beat and less steady gaze. The voice becomes hollow instead of commanding or assuring. Spoken sentences are given a rising and questioning inflection.

It would seem that such data as this study deals with ought to be the beginning place for the study of sociology. In these days of evolution and genetic methods of study generally, sociology ought not lag behind. The biologist no longer confines himself to the morphology of adult forms. He studies germination, embryology, growth, sports, and rudimentary organs. Like the historian, he must interpret the present and foretell the future through a study of the past. The political economist draws illustrations freely from the facts of savage society. The psychologist, in order to interpret the adult mind with its multiplicity of instincts, reflexes, feelings and ideational elements, watches their development from childhood and even calls to his aid the mental unfolding in the phylogenetic series. The same is trne in psychological detail. If we are concerned with a so-called double personality, the important thing is to get a snap shot of the incipient bisection. If with a fixed idea, the primary shock is of more interest and importance than many later details. The same must be true, if possibly to a less degree, of the facts with which sociology deals.

Turning to another aspect of leadership, one of the burning questions in education is, how to transform the exact, demanding, harsh, domineering, rule-of-thumb, dry-as-dust, or on the other hand the weak and invertebrate teachers into real leaders of children. In the United States, as well as in Japan and certain other countries, it is largely a question of systematization versus personal leadership. The faithful work of the primitive oriental teachers, and the excellent influence of some of our best church colleges in America, show where the advantage lies when other factors are equal.

And just as the noblest and most fruitful element in teaching is personal leadership, it is just as true that the preacher, since he is no longer regarded as a mediary between God and man, has little left him except to make himself a personal leader in all affairs that touch the moral side of life. In morality and religion, even more than in politics, we are in a sense undemocratic. We prefer to weigh voices rather than to count them. If we decide to do the *best*, we will not allow the majority to decide what is best. Idols precede ideals.[1]

Religion, being so largely a creature of the feelings, offers one of the richest fields for a study of leadership. Hierarchies of leaders exist in all the great religions. The religious em-

[1] Binet and Vaschide: Monist, March, 1904.

pires are the most extensive the world has ever seen, and the most stable. The fingers of one hand count the chief ones of Asia, Europe, and America. They view the birth, rise, and decay of nations. Of what sort were the great religious leaders, who in their own field *actually accomplished* so much more than the imagination and ambition of Napoleon ever *conceived* of doing in the world of politics. What, for example, must have been the nature of the electrifying and enchanting influence of a Jesus or a Buddha, that those who heard him should forsake all in order to follow him in his wanderings?

In government, unlike religion, we have passed, or rather are passing, through an important transformation. In primitive society *qualitative* values, that is *personal* elements, were predominant. At present the hereditary limited monarchy and democracy have undermined the hero and his qualitative value. The ideal of democracy is to bestow upon its leaders a purely quantitative value.[1] The effects and counter-effects of this momentous change would make interesting and legitimate subject matter for psychology.

In brief, there is room for many concrete studies in leadership, such as will concern the educator, the philosopher of religion, the historian and political scientist, as well as the psychologist. Every kind of political organization from the primitive to the modern, every sort of dominance, intrigue, revolution, abdication, war, and what not, that we find in the adult world, is paralleled in the personal and social relations of school children. It is not only probable that much light would be thrown on the former by the latter, but such cross sections of child society as are pictured in our returns are of importance in themselves. They are the foreshadowing of the political and religious organizations that will hold forth a generation or so hence. They are the *Alpha* of which a future government, or religion, or revolution, will be the *Omega*.

At the very outset, however, we meet a very great difficulty. Leadership resolves itself into many questions. It may be treated from the standpoint of the child, the savage or civilized man. But if we thus once begin to break up the subject where are we to end? Shall we not have to regard as fairly distinct from each other, political leadership, military, religious, ethical, musical, scientific, etc.? Will not the problem depend on whether we have in mind the poor or the rich, the ignorant or the learned, the emotional or the deliberate, the good or the degraded, the self-reliant or suggestible, and so on forever?

To an extent the implication is legitimate. The qualities of persons no doubt affect us a little as do colors or forms. This

[1] *Vide* Binet and Vaschide: *loc. cit.*

need not mean, however, that it will be useless to try to make out the qualities of leadership. Perhaps a last analysis will sometime reveal that above and beyond these species of leadership there is a genus; or, to change the figure, that a least common multiple of the many types exists.

II Leadership Among Animals.

Very little is known about leadership among animals. Most of the observations so far made are by persons of little scientific training. No one has employed experimentation or even careful observation. There are several difficulties in the way of such a study. In the first place, the observations would have to be of long duration in proportion to the results gained. In the second place, it is doubtful if the artificial environment of captivity would call forth whatever phenomena might be frequent in the normal state. Moreover, the activities involved in leadership are not simple, and the component factors must first be studied separately before much light can be thrown on the psychical complex as a whole. These related and preliminary facts are not yet fully determined. To illustrate, it is evident that the question of animal leadership is largely coincident with that of imitation. But it is not certain just how much and what sort of imitation exists among animals.

Keeping this in mind, we may use the term leadership in a broad sense, so as to include most of the facts of imitation, suggestion, sentinel posting, and group chieftainship. The following are a few of the observations, of varying degrees of reliability, coming under these headings.

1 *So-called Imitation and Suggestion.*

Morgan[1] states: "If one of a group of chicks learns by casual experience to drink from a tin of water, others will come up and peck at the water and will themselves drink. A hen teaches her little ones to pick up grain and other food by pecking on the ground and dropping suitable material before them, the chicks seeming to imitate her actions." "A little pheasant and guinea fowl followed two ducklings . . . . . and seemed to wait upon their bills, to peck where they pecked and to be guided by their actions." "If a group of chicks have learned to avoid cinnabar caterpillars, and if one or two from another group are introduced and begin to pick up the caterpillars, the others will sometimes seize them though they would otherwise have taken no notice of them." Morgan also cites a quotation to the effect that if pigeons are reared exclusively on small grain they will starve before eating beans. But when

[1] Habit and Instinct, pp. 166-182.

they are thus starving, if a bean-eating pigeon is put among them, they follow its example, and thereafter adopt the habit. Again, "I have often observed that in broods of chicks brought up under experimental conditions by themselves, and without opportunity of imitating older birds, there are one or two more active, vigorous, intelligent, and mischievous birds. They are the leaders of the brood; the others are their imitators. Their presence raises the general level of intelligent activity. Remove them, and the others show a less active, less inquisitive, less adventurous life, if one may so put it. They seem to lack initiative." In agreement with this, Dr. Wesley Mills found that when he introduced his mongrel pup to the society of the other dogs, its progress was extraordinarily rapid.

Dr. Kinnaman, in experimenting with his two Rhesus monkeys, found very many examples of imitation similar to those mentioned by Morgan, and in addition to the cases that might be classed as instinctive imitation, at least two cases which he would class as intelligent imitation. These were both imitations of the male by the female.[1] In one case the female had several times completely failed at removing a plug fastening and had quit "in disgust." "At this juncture the male was turned out of his cage. He went immediately to the box, she following some four feet away. Knowing the trick perfectly, he seized the end of the plug with his teeth and removed it. I set the box again. This time the female rushed to it, seized the plug by the end as the male did, and procured the food. This she repeated immediately eight times in exactly the same way." The other case was similar. There were also numerous cases where one monkey followed the other when it jumped onto the table or into the window.

Mill[2] states that suggestive action began with his puppy from the fortieth day. He thinks that suggestive action accounts for a large part of the dog's activity, such as sheep worrying, etc. Morgan noticed that when he approached the bars with his three puppies, one went through at once and the two others followed apparently through imitation. Hobhouse quotes a similar case of three stags trying to get over a fence.

We need not enter into the much disputed question as to whether such activities are really imitative. Whether we adopt the liberal interpretation of Hobhouse and Mills, or, on the other hand, agree with Thorndike in altogether denying intelligent imitation to animals below the primates, the objective results are the same. We have an animal doing a thing which it would not have done but for perceiving its performance by

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[1] *The American Journal of Psychology*, Vol. XIII, p. 121 ff.
[2] Animal Intelligence, p. 163.

another. The above examples are given as representing leadership and suggestion reduced to their lowest terms. It may be that such activities can be denominated "leading" and "following" only in an objective sense. It is an undoubted fact, however, that many animals act from the stimulus of a like or similar activity in another.

2. *Sentinel Posting and Allied Phenomena.*

Rocky Mountain sheep live together in small bands, posting sentinels wherever they are feeding or resting, who watch for and[1] give warning of the approach of enemies. Hobhouse[2] quotes from Mr. Cornish, describing the maneuvers of wild geese when they alight on a field of grain. "They post a sentry who either stands on some elevated part of the field, or walks slowly with the rest, never, however, venturing to pick up a grain, his whole energies being employed in watching." Espinas[3] and Brehm[4] cite many similar instances as regards antelopes, termites, and many species of birds.

What are the mental activities involved in these well known habits of sentinel posting? The response given by the individuals to a sentinel call is easy enough to explain, being only a special case of instinctive reaction. But the conduct of the sentinel is harder to understand without crediting the animals concerned with a knowledge of the purpose they are fulfilling. The older observers did not hesitate to make this assumption. Perhaps no single explanation will suffice. As a special adjustment to the needs of gregarious life, the activity may be partly instinctive, partly traditional, and partly intelligent. We certainly cannot speak of a "social system" among the animals, or regard the functions of the sentinel as especially set apart and delegated with human forethought to one member of the group.

3. *Group Chieftainship and Dominance.*

Some observations indicate that among certain of the higher animals there is a more genuine form of leadership than we have so far discussed. It may rather vaguely be denominated chieftainship or dominance over a group. For example, "Birds in their long flights keep together, often with definite leaders who seem to discover and to decide on the course of flight for the whole of the flock."[5] Espinas[6] says that llamas used in South America to carry heavy burdens over the mountains are

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[1] David Starr Jordan: Animal Life, p. 165.
[2] Mind in Evolution, p. 272.
[3] Les Sociétés Animals.
[4] Thierleben.
[5] D. S. Jordan: Animal Life, p. 166.
[6] *Loc. cit.*, p. 499.

allowed to go loose in groups, each group led by a single male richly caparisoned. Brehm says that among elephants a male usually leads the herd. When the leader is shot down, the rest usually flee at once. Darwin, speaking of the semi-wild cattle of the La Platte, says they are easily counted, since they group themselves in bunches of 40 to 100. The owner has only to see if the leader of each group is present.

Brehm[1] states that among monkeys, the strongest or oldest, that is, the most capable member of the group, puts himself up as leader. "This respect is not accorded to him by common consent, but only after obstinate struggle with other ambitious ones. The longest teeth and strongest arms decide. The ones that will not willingly submit are brought to time by bites and slaps."

Seton-Thompson's Lobo, Pacing Mustang, and Silver Spot, the crow, are more fanciful examples of like kind. For these and many of the former stories religious allowance must be made. Silver Spot, for example, is depicted as acting dutifully the part of general-in-chief, chief justice, and schoolmaster to his fellows for many years.

Every farmer boy has observed the fights and quarrels of domestic horses and cows for individual and group supremacy. Several incidents of this sort have been related to me. Also as a boy on a farm where 15 to 20 horses and 30 to 50 cattle were kept, I witnessed many of these contests for supremacy. Among either the cattle or horses there was usually one whom the others allowed to have his own way in every respect. He drank first at the trough, grazed where he pleased, and ate from whatever box he took a fancy for. The dominance was generally settled once for all in a few lively encounters. After that the subdued ones showed only mild protests or none at all. If the make-up of the group remained unchanged the dominant member usually retained his superiority. When a strange individual was admitted his relative rank in the group was pretty definitely fixed before many days.

On the other hand, there were certain ones that might be designated as outcasts. These had to stand aside for all the others. They seemed timid, lacked spirit, and showed no inclination to try to better their condition. Their lot was sometimes a hard one. In going to and from the pasture, they were chased and horned by all the others. At the trough they were the last to drink. Sometimes another who had drank his fill would still stand guard over the water and prevent the outcast from drinking for some minutes.

There were all degrees between these two extremes of rank.

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[1] Vol. I, p. 48.

Each individual had his position relative to all the others and only in rare cases did he try to better it. If attacked by a superior he gave way, with little show of fight. Now and then, however, bitter encounters took place, a reversal of rank sometimes resulting. Neither with the cattle nor the horses did the dominance seem to depend much on size, and not altogether on actual fighting ability. A quick show of courage, and readiness to attack seemed more essential. In some cases I was quite sure that certain members could easily have improved their group rank if they had only tried. As a specific instance, one peppery little mare of only 4 or 5 years was "boss" over about a dozen other horses most of whom were both older and larger. She attacked quickly and delivered her blows or bites in such rapid succession that opposition was soon scattered. Among animals, as will be seen also among children, the very consciousness of superiority or inferiority goes far to make the superiority or inferiority real. The bluff is perhaps even more effective with them than with human beings.

Among the most reliable observations reported, bearing on this study, are those of Francis Galton on the wild ox of South Africa.[1] They cover an extended period of time, and the report is based altogether on Mr. Galton's own experience. The herds were found very hard to manage, as no individual could be persuaded to go first in any desired move, each one backing to give place to his neighbor. For this reason, fore-oxen were highly prized, and there was great difficulty in securing good ones. "The ordinary member of the herd is wholly unfitted by nature to move in so prominent and isolated a position." Breakers watch assiduously for those who show self-reliant nature by grazing apart or ahead of the rest. "The born leaders are far too rare to be used for any less distinguished service than that which they alone are capable of filling. The mass are essentially slavish and seek no better lot than to be led by one of their number who has enough self-reliance to accept the position."

It must be supposed that leadership among animals is an offshoot, or example, of the traits denominated by the term "gregarious instincts." The whole question must be viewed in its biological setting. Leadership in certain individuals implies a want of self reliance in the others. This want is fostered by the very fact of gregarious living. The conditions of life have made a want of self reliance a necessity to most of the herd. If each animal had the qualities of a leader they would graze apart, defenseless, and easily surprised. As Galton states, "The wild beasts trim and prune every herd into compactness,

[1] Human Faculty, p. 68 ff.

and reduce it to a closely united body with a single leader.'' A member of the troop tends to acquire a certain supremacy for the simple reason of his greater independence, activity, and capability. A very little intelligence operating on the hereditary tendency to follow and imitate will suffice to fix the habits in question.

But the full extent and significance of animal leadership will only be determined by studies made under rigid experimental conditions.

III. Leadership Among Primitive Races.

Among most primitive races the chief has to be brave, strong, cunning, and enduring. As Carlyle reminds us the king is literally the *man who can*, the *könning man*. The office is not generally hereditary, but goes as a prize to the deserving, either through common consent or formal election.

Ordinarily he must prove that he has useful qualities before he can become chief. If he has proved his valor and skill in exploits of war and in dangerous hunts, well and good. But if his metal is yet untried, initiations are sometimes resorted to as a test.[1] The Columbian Indian tribes impose a long fast, and later the older ones apply vigorous lashes with a whip till the candidate is covered with stripes. If he allows the least complaint to escape during this rude preliminary test he is dishonored and rejected. If he courageously persists, he is then covered with stinging ants. As a final test, he is suspended in a hammock over a fire of leaves so that he feels the heat and is suffocated by the smoke. Tyler states that among certain savage tribes he is chosen as chief who can lift the largest beam and carry it longest. For the work that savages have to do, the immediate usefulness of the qualities thus brought out is evident, though wisdom and moral courage tend gradually to replace cunning and physical endurance.

The following quotations give an idea of a few of the qualities sought for in chiefs: Schoolcraft[2] says Indian chiefs are as a rule a manly, intelligent body of men, with a bold and independent air and gait, and with good powers of oratory. ''Their repose of character and ease of manners cannot fail to strike one; but what is still more remarkable is to hear one of them, when he rises to speak, fall into a train of elevated remarks which would often do honor to a philosopher.''

Among the Iroquois[3] the rank of chief was personal. It was gained by the character and achievements of the individual and

[1] Letourneau: Polititical Evolution, p. 16.
[2] Archives of Aboriginal Knowledge, Vol. V, p. 152.
[3] Hale: Iroquois Book of Rites, p. 68.

died with him. Among the Omahas[1] the chief must enjoy a good reputation and have given feasts to the poor and orphans. The leaders of the Columbian Indians[2] "are always men of commanding influence and often of great intelligence. They take the lead in haranguing the council of wise men, who meet to debate on matters of public moment." The head man among the Indians of Guiana[3] is generally the most successful hunter, who without having any formal authority obtains a certain amount of preference. His order to go anywhere or to do anything is implicitly obeyed. Among other Indian tribes[4] the hunters union comes to possess more power than the chief and his council. They are the tribe's stomach. If the chief does not show special hunting ability he may be left at home to manage the affairs of the women and children and weaklings, or in some cases his power reduced to that of determining the time of the hunt. Among the Australian tribes[5] there is no recognized head, whether king or chief, but men of preponderating influence are those distinguished for courage, strength, and force of character. These, in connection with the elders, generally advise as to public actions, settle internal disputes, and enforce obedience to traditional law. Among certain African tribes[6] the most wealthy and liberal chief is reckoned the best. In most cases, however, it is the one with greatest knowledge and skill, especially in matters of war. "The family stock also has a leader, usually the eldest, but apart from warfare, his influence is little. Moreover, the chief's nearest relatives have a certain ascendency, and thus we find them already striving to give a more oligarchical character to their government." The Polynesian chieftain[7] derives his power from his age, personal influence, and yet more from his wealth. As with the Indians, pecuniary inequality engenders political inequality. It is said that among the Esquimos, the most successful weather prophet is often chosen leader.

It is an oft noted fact that the power of the chief is greatly strengthened in many cases by alliance with the priesthood. Ratzel states that conversion to Christianity has almost always destroyed the power of native chiefs, by killing the influence of their magic. Morris emphasizes[8] this point. "In fact, it seems to have been through the influence of religious ideas that men first rose to power and became supreme over their fellows."

[1] Letourneau: *loc. cit.*, p. 46.
[2] Bancroft: Vol. I, p. 275
[3] Thurn: Indians of Guiana, p. 211.
[4] Ratzel: History of Mankind, Vol. II, p. 135.
[5] John Matthew: Australian Aborigines, p. 93.
[6] Ratzel: *loc. cit.*
[7] Letourneau: *loc. cit.*, p. 71.
[8] Man and his Ancestor, p. 191 ff.

There is a tendency to regard the chief who leads in acts of public worship as the representative of the divine ancestor, and as such a tribe develops into a nation, its chief adds to himself the power and position of high priest. In America it was true everywhere that the head of the established religion became the head of the nation. Thus, Montezuma was high priest and derived his power largely from that position. Such rulers become autocrats in a double sense, supreme lords of body and soul. The powerful monarchs of Assyria led their armies to conquest in the name of the national deity, whose vice-gerents they claimed to be. The autocratic emperors of Rome went so far as to claim in some cases to be themselves Gods. The emperor of China still holds the position of father of his people, the representative of the original ancestor and high priest of the nation. Even in modern Russia, the emperor derives some of his dignity from his position as head of the national church.

War, as well as religion, has played a great part in the leadership of primitive men. Among many tribes it gives rise to a special leader whose office is separate from that of peace chieftain. In some cases, the tribe is divided into two separate divisions, a war group and a peace group, each with its own head. Other tribes have usually only a peace chieftain and elect a war captain only as occasion requires. Not infrequently the peace chieftain simply adds the duties of war captain to his own, making himself supreme. When the tribe habitually has separate leaders for peace and war, the former generally inherits his office while the latter seldom does. The position of war captain is so vitally important that it comes only as the reward of highest merit.

The following quotations illustrate the practices among a few primitive races. When the Patagonians form a confederation against an enemy,[1] they choose a chief from among the most renowned warriors. But always the power of the war chiefs is transitory. It expires with the occasion that gave it birth. In New Zealand,[2] if a war or other enterprise is about to be launched, a man is chosen chief who has already proved his bravery and prudence. But the expedition over, the improvised chief is again lost in the crowd. Among the Pueblos, each tribe or village has a chief to whom a certain degree of respect is conceded. His influence is maintained chiefly by his oratorical powers or military skill. In war, his authority is recognized, but in time of peace his rule is nominal.

Bancroft[3] also states that the Comanches of New Mexico vest little authority in the chief during peace, but on the war path

[1] Letourneau: *loc. cit.*, p. 56.
[2] Cook's Voyages, Vol. VIII, p. 103.
[3] Bancroft: *loc. cit.*, Vol. I, p. 547.

his commands are implicitly obeyed. It also happens that chiefs are sometimes chosen to lead some particular war or marauding expedition, their authority expiring immediately on their return home.

According to Schurtz,[1] the contrast between the war and peace groups shows plainest with the American tribes. The sachem was the peace ruler and his office was hereditary. His duties were limited entirely to affairs of peace. His relations touched chiefly the gens whose official head he was. The war chief was chosen for his bravery in war, his wisdom in matters of diplomacy, or his talkativeness in council. His relations touched chiefly the tribe. The head of the clan had to do with the narrow self-satisfying ways of the clan; the war chief, with the tribal union and the state building powers. Among the Delawares, for example, the peace captain had very little power. Imperial manners did not become him. He had rather to seek the submission of his subjects through liberality. The war chiefs were not exactly elected, but gathered a following through personal influence.[2] Small wars were sometimes undertaken by the war chief independently, but important ones with the consent of the peace chieftain. The inhabitants of New Pommeronia have a hereditary peace ruler, and also a war captain, whose influence rests strictly on personal qualities. Between these two heads there is continual strife, which, strange to say, is usually unfavorable to the war chief. The La Platte tribes, the Cherokee, the Iroquois, the South Sea peoples, the Maori, the New Guineans, and, as Miss Kingsly thinks, all the true negroes offer close parallels to the above described forms. However, among some, as for example the inhabitants of Tonga, the war chief has succeeded in pressing the king entirely into the background. This recalls the *Hausmeier* of the Frankish kings, or the overshadowing of the Mikado by the Shogun. On the other hand, the opposite tendency has usually prevailed in Africa, the war chief taking a back place or being chosen in case of necessity only. The shepherd tribes of Messai in peace are ruled by patriarchs, but in war a common leader is chosen to take charge till peace is re-established. Likewise among the Arabs, the *scheich*, or peace patriarch, gives way in war to the *Argyd*, who is chosen from the ranks of the bravest men.

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[1] To whom I am indebted for much of the following information. See his Altersklassen u. Männerbünde, Chapters 2 and 4.

[2] "Sie erwarben sich durch ihre Thaten das Zutrauen der Krieger, nachdem sie in der Regel zuerst durch einen Traum zu dem Entschluss gekommen waren, einen Kriegzug zu unternehmen und dazu freiwillige um sich zu versammeln: glückten einen solchen Freischarenführer seine Unternehmungen mehrmals, so erkannte man ihn allgemein als Kapitän an, hatte er Unglück so war es mit seinem ergeizigen Plänen zu Ende."

As Schurtz points out, the same general facts hold with the ancient peoples of Europe. The Germans during the migration period were under the double leadership. The *Fürst* was originally the head of a family, or family group. Opposed to him was the *Herzog*, or war chief. The activity of the former was directed within, and rested on patriarchal authority. The latter represented the spirit of aggressiveness. Sometimes one, sometimes the other, had the upper hand in the same people. The Franks during their migration were under the Herzogen, but after they had won permanent homes, the kingdom was handed over to the Merowingian family.[1]

We see, therefore, that the institution of war chiefs, though temporary in the beginning, tends in the long run to the organization of a régime more or less monarchical, and the tendency is greater the more frequent are the wars. Morris[2] says: "The head man became a war chief and the war chief a king. Success made him a hero to his people. He grew to be the lord of conquered tribes; into his hands fell the bulk of the spoils. . . . . War was the great agent in this evolution. It might have emerged slowly in peace, it came with startling rapidity in war." We may say, in short, it happens universally that leadership is intensified in times of emergency. War, conflict and adventure are its fertile soil. It grows directly with the need of concerted action, this point coming out time and again in the questionnaire returns.

The club-like organizations described by Schurtz and others also give occasion for the phenomena of leadership among primitive races. Though existing in many parts of the world, they are perhaps most numerous among the Malay tribes. To reach highest rank in the clubs one must have money, means of life, and wine. "One who has reached highest rank is really a great man and bears the title of *Wetuka* as though he had attained heaven." Without his permission no one can be advanced a single rank.[3] The clubs have 3 or 4 to as high as 18 grades, or degrees. The members of each grade wear an insignia. Some of the clubs are democratic and embrace nearly all the people, while others are aristocratic and admit only a few of the leading persons.

It is noteworthy that few clubs of this kind among primitive races are conducted by women, and such as they do have are

[1] "Hier ist das Bild, das sich bei so vielen Naturvölkern im Kleinen zeigt, einmal in mächtigen Zügen ausgeführt, die durch alles Beiwerk und alle verhüllenden Kultureinflüsse deutlich hindurchschimmern." Schurtz: *loc. cit.*

[2] Man and his Ancestor, p. 199.

[3] Schurtz: *loc. cit.*

only weak imitations of those found among men.[1] We thus have the strange paradox that woman, regarded as the founder of society, has less of the purely social tendency than man. The solution, of course, lies in the fact that we must distinguish between the purely social instincts and the sexual instincts. Schurtz takes the view that the former are not an outcropping of the latter, and that therefore the family may not be the primary social grouping. Woman's weakness in the purely social relations, coupled with her devotion to family life, makes it seem reasonable that the two instincts are not interdependent, and that they may not even have a common origin. As will be seen later, the questionnaire returns also bring out strongly both quantitative and qualitative sex differences in leadership.

IV Leadership Among Children.

(a) *Experimental.*

The following experimental study was made. It is in part a repetition of some work done by Binet.[2] It seemed, however, that the study should embrace a much larger number of pupils[3] and should also be made more intensive. That is, facts concerning the pupils should be gained from other sources than the tests.

One hundred pupils of the Bloomington, Indiana, public schools acted as subjects. They were distributed as follows:

Grade 2,	12	boys	and	12	girls.
" 4,	12	"	"	12	"
" 6,	8	"	"	12	"
" 8,	8	"	"	8	"

In addition, 8 boys and 8 girls, in the colored school, ranging from the 5th to the 8th grade, were tested separately.

The general aim was to discover those pupils who might be termed "leaders" of their fellows, and to ascertain the qualities whereby they held this ascendency. It is evident that without long personal acquaintance with each pupil, and without opportunity for long and careful observations of their actions during work and play, the outcome of the study must be meagre

[1] "Die Frauen nur selten unbefangen mit einander befreunden. Im gegentheil sie ein gewisses Mistrauen und selbst Übelwollen gegen ihres gleichen nicht leicht überwinden. . . . . Ein Blick auf die Zustände des wirklichen Lebens lässt denn auch die geringe gesellschaftsbildende Kraft des Weiblichen Geschlechts in überzeugender Weise erkennen" Schurtz; p. 48.

[2] La Suggestibilité, p. 330 ff.

[3] Binet used only 24.

enough. The results are not claimed to have a high degree of absolute value.

The tests were as follows: On a heavy cardboard about 16 x 24 inches were fastened pictures and objects, to the number of ten. The pupils were withdrawn, four at a time, to an unoccupied and quiet room. To throw them off their guard they were told that they were to engage in a memory test. It was further explained that the cardboard would be turned so that they could view for ten seconds the objects and pictures pasted on the other side. After the removal of the cardboard from sight they were to answer a number of questions concerning what they had seen. They were given to understand that we would record the reply of each pupil and the order in which it was given. They were therefore urged to reply both quickly and correctly. The answers were given with loud voice. The instructions were always repeated till they were clearly understood.

Binet used only three pupils in each group. On consideration, it seemed best to have more. Groups of five were first tried but the order of the replies being too difficult to get, the number was reluctantly reduced to four. Binet also chose one member of each group to act as chairman of that group, allowing him to read the questions, to record the answers, and at the same time to act as subject himself. To say nothing of the relative disadvantage thus thrown on such pupil, it appeared that even so slight an exhibition of preference on the part of the experimenter would likely affect the group spirit. Accordingly all were allowed to stand on equal footing, either myself or an assistant asking the questions while the other kept the records. The girls and the boys were tested separately. Moreover, except in the colored school, the pupils of any group were chosen from a single grade.

Twenty-three questions were asked concerning the objects and pictures, 11 of which were catch questions; that is, they asked about things which were not on the cardboard. These were intended to serve as a test of the pupils' suggestibility. It was found somewhat difficult to hit upon the right sort of catch questions and to locate them properly in the series. Two extremes were to be avoided. The traps must not be too glaring, else the suspicions of the subject would be aroused. Neither must they be so easily led up to that none would escape them. Usually they were separated by fair questions, and the more obvious ones were placed toward the latter part of the list, since we hoped by that time to have won the confidence of the pupils.

When all the 100 subjects had been thus tested in groups of 4, a second series was begun in an exactly analogous

way, with a new set of objects on the cardboard and a new set of 23 questions, 9 of which were catches. 80 of the former 100 pupils participated. For this series of experiments the former groups were broken up and new ones formed. In the latter, the pupils were intentionally so chosen that each group would contain at least one pupil who had shown himself a leader, and one who had appeared to be an automaton in the previous tests. It could thus be determined whether the rank of a pupil in any group of the first series had wholly a relative, or to some extent an absolute meaning.

In elaborating the results the following points were noted for each pupil:

1. The number of times his reply was first, second, third or fourth.

2. Originality; 3, The number of times each pupil of a group imitated each of the others.

4. Total number of imitations made by each.

5. Total number of times each pupil was imitated, by all the others.

6. Suggestibility, as measured by the number of times the subject fell into the trap.

The arbitrary use of some of the above terms must be explained. "Originality" means that the answer could not have been influenced by the answer of any other pupil. This does not, however, preclude its being suggested by a trap question. The "originality" can be shown in two ways: First, by answering before all the others; second, by giving an answer which, though not first, differed from the preceding answers in such a way that it could not have been influenced by them. Here, it must be acknowledged, there was often room for doubt, since it was not always possible to calculate just how far contrary suggestion was at work. "Suggestibility" was computed in per cent. If the pupil fell into all the traps his "suggestibility" was reckoned 100%. If into 4 out of a total of 8, 50%, etc. The other items will be made clear by the following illustration: Suppose that in answer to a question the same reply was given by all, A, B, C, and D, in a group. If A answers first, he is "original." B answers second, and since his answer is the same as A's, he is credited with one "imitation." C answers third and therefore "imitates" A and B once each. D answers fourth and therefore "imitates" A, B, and C once each. That is, A makes no "imitation," B makes one, C makes two and D makes three. A was "imitated" three times, B twice, and C once.

As expected, certain of the pupils answered first nearly always, while others were generally last and were content to re-

peat exactly or with slight variation the answer of another. For example, in one group,

	FIRST.	SECOND.	THIRD.	FOURTH.
A answered	1	4	8	10
C "	9	6	5	2

It soon became evident that not always could those who answered first be called "leaders." Fifteen times it occurred that the group rank of pupils in quickness and in number of times "imitated" differed radically, *i. e.*, by as much as two places. Here, we have an unmistakable exhibition of personal preference. Those who have not the initiative for framing an answer of their own, will prefer to repeat the answer of one pupil rather than that of another. The first reply is a stimulus which always tends to result in an activity of the other pupils suggested by it or imitative of it, but in the above fifteen cases the tendency was generally overcome by some inhibition. It likewise happened several times that the quickest were not the most "original." With twelve pupils there was a wide divergence between the group rank in "originality," and that in number of times "imitated." Another, and perhaps more significant result was the fact that low "originality" often accompanied low "suggestibility," and *vice versa*. In fact the average "suggestibility" of the *leaders* was slightly greater than that of the *automatons*, the percentage being 62 and 59 respectively. Their comparative "originality," however, was 13.4 and 5.6, out of a total of 23 questions answered. This fact may have been due to the intense desire of the leaders to answer first, though the subjects were repeatedly reminded that it was as important to answer correctly as to answer quickly.

A greater number than expected, namely, 19 out of 80, obtained in the second series of tests a radically different rank from what they had gained in the first series. Of 22 leaders in the second series, 12 had been leaders in the first series, and five had occupied very low rank. Out of 32 automatons in the second series, 18 had been so in the first series, and 7 had occupied very high rank.

The following table shows the grade and sex differences for "originality." Each number represents the number of original answers out of the total set of 23.

GRADE.	2	4	6	8	COLORED.	AVERAGE FOR EACH SEX.	
boys	8.50	8.33	9.25	10.12	9.50	9.14	Series I
girls	7.16	6.91	8.	10.62	9.62	8.50	Series I
boys	9.85	7.25	8.	10.	7.12	8.44	Series II
girls	6.37	5.87	8.	9.62	8.87	7.75	Series II
Average for each grade	7.97	7.09	8.31	10.09	8.78	8.45	

The following table shows the percentage of "suggestibility."

GRADE.	2	4	6	8	COLORED.	AVERAGE FOR EACH SEX.	
boys	50	77	77	45	73	64 +	Series I
girls	66	76	77	52	77	60 +	
boys	72	76	91	45	78	72 +	Series II
girls	86	97	90	55	61	78 —	
Average for each grade	68.5	81.5	83.7	49.2	72.2	68 +	

The second part of our task was to get further facts about the pupils that would throw light on the cases of leadership among them. This the teachers were kind enough to furnish by answering 22 questions in regard to each pupil. They are as follows:

1. Age? 2. Size, in relation to grade? 3. Dress? 4. Is dress gaudy? 5. Any physical peculiarity or deformity? 6. Health? 7. Are parents wealthy or otherwise prominent? 8. Is it an only child? 9. Quality of school work? 10. Notable for boldness or daring? 11. A leader in games or pranks? 12. If so, is it by forcing others or by natural attraction? 13. Liked or disliked by other pupils? 14. Why? 15. Fluent of speech in conversation? 16. Any dramatic qualities? 17. Looks? 18. Reads much or little? 19. Timid or forward? 20. High tempered or amiable? 21. Selfish or considerate? 22. Emotional or deliberate in temperament?

Questions like 2, 3, and 9 were graded on a scale of five. To illustrate, 1 = very large, 2 = large, 3 = average, 4 = small, 5 = very small. Questions like 16, 18, 19, and 20 were graded similarly on a scale of three. Some of the most important results are summed up in the following table.

	Grade.	2	4	6	8	Colored.	Average.
Age in years.	Leaders	7 2/3	10 3/7	13 1/5	14.75	14.	
	Automatons	7 2/5	10 1/6	12.60	14.80	14.60	
Size, on scale of five.	Leaders	2.16	2.62	2.33	3.20	2.	2.48
	Automatons	3.11	3.	2.80	3.	3.	2.98
Dress, on scale of five.	Leaders	2.50	3.28	1.83	1.80	2.50	2.38
	Automatons	2.70	3.25	2.40	2.	2.60	2.59
Quality of work, scale of five.	Leaders	2.40	2.14	2.50	2.20	3.	2.41
	Automatons	2.50	3.50	2.60	3.	2.60	2.84
Looks, scale of three.	Leaders	2.25	1.62	1.50	1.20	2.	1.72
	Automatons	2.11	2.12	2.20	1.75	2.20	2.09
Selfishness, scale of three.	Leaders	2.20	1.56	2.	1.20	2.25	1.84
	Automatons	2.	2.	2.	2.25	2.	2.05

Several of the questions do not furnish data to show any-

thing clearly. To sum up the chief results, the pupils who were leaders in the tests are larger, better dressed, of more prominent parentage, brighter in their school work, more daring, more fluent of speech, better looking, greater readers, and less selfish than the automatons. It was found that a surprising number of times the leaders were graded on size, dress, and school work either as 5 or 1. To illustrate, in grade 4 the leaders are graded on school work as 1, 1, 5, 1, 1, 5, 1. The automatons of the same grade received the following ranks on the same question: 3, 4, 3, 3, 4, 3, 5, 3. This indicates that possibly there is a tendency for children to be influenced by what is unusual; that they are on the lookout for striking qualities of whatever sort; anything to get clear of tiresome mediocrity.

Finally, the same pupils, excepting those in grade 2, were allowed to answer the following questions:

What one of your schoolmates would you rather be like if you were not yourself? Why? Several other questions were asked calling for ideals, but the answers were so scattered that no well defined tendency could be made out. Above all it was desired to find out how much oftener, if any, those pupils stamped as leaders by the experiments would be chosen consciously as ideals by their mates, than would the automatons. The results show that they were chosen 4½ times as often. The fact is important as indicating the validity of the method of experimentation and the great importance of suggestion and imitation as elements in leadership.

Summary of Experimental Results.

1. A large number maintain a well defined rank either as first or last in the groups.

2. The leaders in the tests were twice as often mentioned by the teachers as being leaders, and further were chosen 4½ times as often by their mates as ideals.

3. Suggestibility, as measured by these tests, rises from the second to the fourth grade and then falls rapidly in the succeeding grades. The naïveté with which the smallest children gave correct answers to the catch questions was remarkable. It reminds one of the old story of the king who thought to appear in procession before his people in a magic garment, visible to all except the wicked, and whose nakedness was denounced only by a little child.

4. The pupils show marked choice in imitating the answers of others. Circumstances favor the quickest, but not always are these the most imitated.

5. The leaders have a high average suggestibility. This may indicate that there is some truth in the assertion, often

made, that to be a leader it is more important to lead the way than to be right.

6. The group rank of many pupils in the second series was radically different from what it had been in the first. This does not seem to be due to a wide divergence between the average reaction time or "originality" of the second group as compared to the first. It is the group spirit as mirrored in the consciousness of each pupil. In one group a certain pupil *feels* himself inferior; he follows, therefore, the answers of the others. In another group the same pupil may *feel* himself superior, and be so regarded by the others. This recalls Emerson's words: "Who has more soul than I, masters me, though he should not raise his finger. . . . . Who has less, I rule with like facility."

7. The leaders in the tests, according to the testimony of their teachers, are on the average larger, better dressed, of more prominent parentage, brighter, more noted for daring, more fluent of speech, better looking, greater readers, less emotional and less selfish than the automatons.

8. As regards the reasons given by the pupils for choosing certain of their schoolmates for ideals, intelligence increases in importance rapidly from the second to the eighth grade and goodness as rapidly falls.

9. According to the opinion of the teachers, such pupils are preferred most often for the following qualities, given in order of their importance: intelligence, congeniality, liveliness, and goodness.

10. The data were not suited to bring out race differences in the qualities of leadership.

B *Questionnaire Returns.*

The following questionnaire was sent out.

1. What are the causes and reasons of strong likes and dislikes among children, or for great respect and contempt?

2. Describe cases of excessive dominance of one boy or girl over one or more others or over a group, always giving sex and age. Give concrete cases with details and illustrations. Describe the leader.

3. How much is due to (a) size, (b) strength, (c) skill or feats and what, (d) good looks, (e) good disposition, (f) good and kindly manners, (g) mental superiority and rank in studies, (h) natural kindness and helpfulness, (i) wealth and social station, (j) dress, (k) superior age or maturity?

4. Give cases of boys and girls generally disliked or neglected or even outcast, and state causes, whether the opposite of the above.

5. Is unpopularity the obverse of popularity? Does this differ at different ages? Can you intimate any differences between the age from 7 to 12, 12 to 16, and from 16 to 20 or 25?

(a) Can you describe a case of great influence by a young person who desired not to have this power?

(b) How far is it unconscious and how far striven for, and if the latter by what devices?

(c) Can you give cases of failure or exposure on the part of those striving for leadership?

(d) Can you give cases where a leader has grown weary of power, and abdicated? Lost prestige by taking too much, or sought to transfer it?

6. Can you describe individual or collective revolts against a leader?

7. Give cases where dominance has benefited the followers, fag or henchmen, and state how.

(a) Cases of moral, mental or physical injury resulting from such dominance.

(b) Cases of the good or evil effects of mashes, friendships, cronyisms between those equal or unequal in independence or influence.

8. (a) How can leadership be utilized in the school? (b) How can persecution or unpopularity be mitigated? (c) Does this differ in boys and girls?

9. Describe briefly a bluffer, as to scholarship, courage, honesty, frankness. Must bluffing have spectators? Describe bluffing as a form of ostentatious intimacy; effect of it on other children and their reactions to it, imitation, criticism, sympathy, etc.; how far was it genuine and how far affected?

Questions 2, 3, 4, 5 and 9 were the most fruitful. The others will not be taken up for treatment here. 305 returns were received. In addition to these about 100 had previously been collected from a questionnaire slightly different from the one given above. In all about 600 leaders were reported and described more or less fully. Almost exactly two-thirds of these were girls. This is due to the fact that the returns were from normal school students in the eastern states, most of whom were females. For this reason the cases of leadership among the girls are no doubt more accurately described than those among the boys. The same fact also necessarily distorts the sex differences.

Unfortunately a large number of those answering failed to state the age either of the leader or the followers. This study can therefore throw little light on the development of leadership and its age differences, though this phase of the subject is of the utmost importance.

We may glance first at the qualities most often mentioned as elements of leadership. The numeral represents the percentage of cases in which the particular quality was mentioned.

		GIRLS.	BOYS.
Group 1	Good looks,	19.5%	17 %
	Neatness and dress,	13.5	8.
	Politeness, good manners, etc.,	10.8	8.
Group 2	Wealth and social station,	13.5	16.
Group 3	Age,	10.	17.
	Size,	10.	19.
Group 4	Strength,	5.	20.
	Activity, quickness, skill in devising and playing games, etc.,	21.5	39.

		GIRLS.	BOYS.
Group 5	Kindness,	7.	5.
	Helpfulness,	4.	3.
	Generous, considerate, unselfish,	9.	2.
	Peaceful, peacemaker, etc.,	2.5	
	Sympathetic,	2.	
	Protected the younger,	.5	
Group 6	Loyalty,		2.
	Honest, frank, just, etc.,	2.	6.
Group 7	Jolly, lively, ready for fun, etc.,	8.5	4.
Group 8	Courage, boldness,	4.5	5.
Group 9	Brightness, scholarship, etc.,	10.5	18.
	Good judgment,	1.	
	Tact,	1.5	2.
	Cunning,	1.5	
	Originality,	2.	
	Musical ability,	2.	1.
Group 10	Bribery, flattery, and coaxing,	3.	1.
Group 11	An "only" child,	2.5	1.
	Used to having own way at home,	3.5	
Group 12	Strong willed,	4.5	1.
	Self confident, decided manner,	4.	6.
	Boastful, conceited, etc.,		2.
Group 13	Domineering, bossy, a bully, etc.,	5.5	6.
	Inspires fear,	2.	2.
	Sharp tongued, sarcastic, etc.,	5.	2.
	Haughty,	1.5	
Group 14	Good disposition and temper,	13.5	8.
	Friendly, pleasant, gentle, attractive, amiable,	4.	1.
	Unaffected, natural, unobtrusive, meek,	2.5	1.
Group 15	Strange,		1.
	Greater experience,	1.5	7.
	Coarse,	1.	2.
	Uses slang,	.5	
	Mischievous,	1.	2.
	Smoked,		1.
	Wit,		3.

It seems therefore that girls, in order to be leaders, stand more in need of such qualities as are mentioned in groups, 1, 7, 10, 11, and 14 than do boys. The boy leaders on the other hand are more likely than girls to have the qualities of groups 3, 4, 6, 8, 15, and brightness of group 9. The other qualities are not very unequally divided. Their values may readily be seen from the table.

The returns are not adapted to bring out the relative frequency of leadership with boys and girls. The fact, however, that one-third of the leaders described are boys, although almost all the returns were written by young women, would indicate that it is probably more common with boys. Several of those answering state this as their opinion. From the returns it appears also that leadership is more intensive with the boys.

The group spirit is stronger with them and they are less likely to revolt against their leader. The girls show more of a tendency to divide up into small groups. Jealousy more often comes in as a disturbing element than with the boys. Personal resentment is aroused more readily and is not so easily allayed. They show less of the give and take spirit than do boys. If it be objected that the phenomena of leadership are more common among the boys only because of the group games and rough out-door sports in which boys engage, it may be replied that this very fact is only an additional proof that girls do not have the inherent social tendencies that boys have. The differences here mentioned are in line with the differences in social tendencies already noted between the males and females of primitive races. They are also paralleled by the common observation of men and women in civilized life. On the other hand, it must be acknowledged that there is no sure means of ascertaining just to what extent the observed differences everywhere are a mere artifact produced by social environment. If any one is so radical as to claim that all the apparent differences can be thus explained away, there is no way utterly to refute him. The conclusive experiment cannot be made.

In so far as ages are given, the qualities that increase in frequency with increase of age are those of groups 1, 2, 4, 6, 8, 9, 12 and 15. Those that decrease with age are the qualities of groups 5, 7, 10, 13 and 14. The other qualities mentioned do not show striking change with increase of age.

The bulk of the returns show that in the first three or four years of school life there is little real leadership. The relationships are personal and not of the group kind. Several may play together, but when they do, they act independently of each other. Whatever phenomena of leadership are found at this period are less permanent and more partial than later. A marked change comes in the pre-adolescent stage of 10 to 12 years. Friends are chosen on account of personal attraction and admiration rather than for purely accidental reasons. Concerted action begins to replace individual play. These tendencies become more and more accentuated until by 15 to 18 years the group spirit becomes strong, personal attachments are made in accordance with subjective ideals, and a large proportion of the total number of boys and girls could instantly be classed either as popular or unpopular among their fellows. There is also plainly evident a tendency to evaluate themselves as inferior or superior to others. Domineering acts are now due to conscious self-assertion and no longer to childish egoism. A new diffidence appears, very different from the bashfulness of childhood.

Perhaps few persons except teachers realize the great extent

to which certain children influence others. Most of us have forgotten the influences that gave color to our childhood, and we do not usually take note of the subtle suggestions that pass among children. The following condensed returns show the length to which leadership and dominance often go.

Girl of 12. Had great influence over her schoolmates. At one time she became angry at one of her mates and persuaded all the others to be "mad" at her also. For several weeks no one spoke to that girl. Due to social standing, "smart" manners, and skill in games.

Boy. Persuaded 35 or 40 boys to come together for military drill. He acted as captain. Through his efforts an entertainment was given and money raised to buy linen suits.

Boy of 12. Always proposes the games. He is selfish and inclined to be bossy. The pupils often say so and yet at the same time do everything he wishes. He is extremely large of his age, courageous, and so mischievous as to be a constant source of worry.

Boy of 10. Leader of a large group. Once persuaded all the boys to stay away from school an entire day. Later he begged the teacher's pardon and made all the others do so. He was above the average in size and physical strength. Was homely, pug-nosed and freckled.

Girl of 14. If she was absent, disputes were not settled till her return. We played no games that she disapproved and talked to no girls whom she disliked. Reasons, musical skill, good looks, dress and neatness.

Boy of 14. The other boys followed him in every respect. One day the school boys had proposed to take away the wood which an old colored lady had piled up in her back yard. This boy came in and persuaded the others to chop her wood for her instead of removing it. They did not stop till it was finished.

Boy of 9. Domineers excessively over his companions in a pleasant way. They do as he does. He has only to begin a game to have them follow. If they are playing and he quits, the game soon breaks up.

Girl. Was leader in everything we did. She always proposed our games. It seemed we could have more fun when she planned things. Others had greater mental ability, but all of us stood aside for her to move first. She was much larger than the rest of us and a little older. She had beautiful manners.

Girl 12. Jolly, and full of ideas for our play. She always headed the mischief. Whenever we had a party we consulted her as to whom we should invite. Often she persuaded us not to study, and for that reason part of the grade failed to pass. Certain girls whom we very much disliked we tolerated because she liked them. Due to her skill, ability to suggest, and good temper.

Strong Irish girl, with sharp tongue. On one occasion, when kept in by the teacher, she led her group right out of the schoolhouse.

Girl of 16. For four years has absolutely ruled all the other children in the country school she attends. Hardly know how she does it. She is used to her own way at home, being an "only" child.

Girl of 9. We would play no game till she had consented. When her regular seat mate was absent, we all wanted to sit with her. We took care not to wear clothes that she did not like. Due to good looks, manners, social station and clothes.

Girl of 12. If she was absent from school, the others would not decide anything that came up till she returned. She was leader of all our games. All of us wanted to walk arm in arm with her from school. Due to her size, skill in games, musical ability and fine appearance.

Girl of 12. Had a strange power over all of us. She made us play

just the games she wished. In the spring she came to school one day without her coat and we at once did the same. Was good looking and could manage the games.

Girl. We were abject slaves to her. She planned all our games. She was independent and expected us to follow. She would be no "bestest" friend to any of us and yet offended no one. She was from New York but was not "stuck up" and we liked her for that.

The following are examples of the bossy, domineering, selfish type:

Boy, 12 to 16. Would not have a friend he could not lead. Always managed to have his own way, except now and then, when he had nothing to lose, he would give in to his followers with a show of generosity. Was selfish and deceitful, yet pleasant. Was older than followers.

Boy of 12. Not attractive, but rules his schoolmates absolutely. He is selfish, rude, cruel, and inspires fear. He is inventive and clever.

Girl of 13. Tried hard to be the leader of her class. Strove for all the good offices. Her devices were cunning and flattery. Her leadership lasted but one year at the end of which time she saw herself in disfavor and resigned her position. Her failure made her ill.

Girl of 14. Larger than rest of us and with actions like a boy. She whistled and had a coarse, loud voice. Domineering by nature. We really did not like her and yet she exerted a great influence over us.

Girl of 15. Always assumes the attitude of leader. She likes to name her home as the place to congregate, and those who are not agreeable are not allowed to come. She is dictatorial and strong willed.

Girl of 10. Leader of all her schoolmates. Through her influence every girl who was ugly or lacking in neatness was kept from her set. She hated a Tom-boy and caused all the others to drop the rough sports they had been fond of. High social standing.

Girl of 11. Ruled the boys and girls alike. One of the wealthiest girls in the village was her slave. She could make us do as she wished before we knew what was up. She was good looking, daring, skillful in holding her own, and older than the rest of us.

Girl. From childhood to womanhood ruled over her sister, two years younger. She led in the play and treated all ideas and suggestions of the younger sister with contempt. The latter grew timid, and lacks force in putting forth her ideas. The older is more active and original.

On the other hand, some children seem fitted by nature with the very qualities that attract others spontaneously. They make no conscious effort to rule and yet their every hint is carried out by those around. The following returns represent this type:

Girl of 12. All the girls wanted to walk home with her. When school was out there was always a perfect rush to get close to her. The other pupils often quarrelled over her. Skill in games, good disposition, wealth and dress.

Girl of 16. Leader of five others, all of the same age. An "only" child, fashionable, skilled in music, and of beautiful manners. She is popular with both boys and girls. When she decided to learn to dance, all her schoolmates caught the craze.

Girl of 10. Leader of boys and girls. Never alone, but always a

horde following. Jolly, off-handed, extremely resourceful, aristocratic looking. In our dramatic plays was always composer and "leading lady."

Girl. Leader from the age of 9 to 20. We all liked her and would do anything for her. If she was ill, we preferred to stay at home with her rather than go out without her. She still leads her crowd. "Only" child, very attractive and stylish, and kindness itself. She was skillful in arranging a good time, always knowing what to do next.

Girl. Led the boys and girls. The boys were always polite and gentle in her presence, showing their deference in many ways. Her look or word could influence the whole school. Larger, beautiful, composed, fascinating, and old in her ways, always having been her mother's companion.

Boy. Matured early. Charming personality, and skill in athletics. Could always understand the demands of the moment. Strong, good hearted, yet in many ways different from what you would expect.

Boy. Was a leader through grammar school, high school, and college. Most popular student I ever knew. Very bright, magnetic, strong will, natural kindness. The teachers always forgave him more readily than they did the other boys and yet his mates did not dislike this.

Boy of 14, in country school. Was small, but ruled those larger, older and stronger. High ideals, scorned a coward, protected the smaller boys, natural gentleman. Could see both sides and judge quickly and justly.

Jonie, 15. Leader of "Jonie's crowd." Is tall, strong, jolly, good-looking. Two years older than his followers. Once got his crowd to set off on an Indian tramp. They walked four miles, camped out in an old mill and ate their dinner. Then they marched back, holloing "hurrah for Jonie's crowd!"

Although skill in games and ability to perform feats are prominent features in many of the above examples, they are especially so in the following.

Girl of 10. Had great influence over me because of the fact that she could walk the board to which the fence pickets were nailed. Several of us envied her for this reason. She was also very strong.

Girl of 12. Leader of all the rest of us. We always followed her willingly. No matter what game we played, she was "it." Could run, jump and climb fences better than any of the other girls. She was never at a loss in thinking up new games.

Girl of 14. Rules the girls with absolute sway. She makes new games, assigns parts, settles disputes and enforces commands. Keen sense of justice, ability to think quickly, and ready expression.

Girl of 12. Because she knew stories and could dramatize them was leader of about 15 children. Was also skillful in athletic feats.

Girl. Leader throughout grammar school and high school. A few disliked her out of jealousy, but even these acknowledged her leadership. Whether it was a dialogue, game, party, or something else, she was always the one to get it up. Good looking and had a delightful manner.

Boy of 12. Planned our play and conducted it. Could tell stories and illustrate them with drawing. Could do all kinds of tricks and make pretty toys. Older and larger than the others. Read much.

Boy of 13. A "ring leader." Broader experience than the others. Had been in town schools. Always had a scheme to interest others. Not truthful or honest, but polite, good in games, and very bright. Was younger than his followers.

Boy 15. Big and well formed. Could run, jump, spin a top better than anybody else. We thought there was nothing impossible for him to do.

Boy of 14. Led all his associates. They carry out whatever he suggests. Once he persuaded them to "chip in" and build a club house. Many difficulties were met but all were overcome through his encouragement. Younger than his followers, but has a very practical mind.

Boy of 13. Strong, well built, good looking, and outspoken. Once he got the other boys to break up our game. Often he would perform feats of agility while the other boys stood by and watched. None of them could equal him in feats and games.

Boy in high school. A leader of boys and a favorite of girls. Tall and strong. Captain of all the athletic teams and leader in all sports. Skillful performer on the piano. Everybody liked him so I decided I would not. Later we became fast friends.

Girl. Leader even among the boys. Larger and willing to be "it." Could run as fast as any of the boys. Daring and full of fun. Good natured and athletic.

A good many examples were given bordering on the criminal and "gang" type. A few of these may be given.

Boy of 14. Leader of five boys in the grammar grade. Oldest of the group. Daring, not afraid of any one. Was able to get the boys to do anything he said. Used to play truant for days at a time with one or two of his companions. Police had difficulty to catch him. Large for his age, strong, untidy, and swaggering appearance.

Boy of 15. Leader of a group of seven. The very embodiment of depravity. Younger than his followers. They were a gang of thieves. All smoked cigarettes. Some of the boys were from good homes.

Boy of 16. Eight followers. They were led into lying, cheating and stealing. He got one of the boys to steal several hundred dollars from an uncle. The leader took a large share and divided the rest among the other boys. He smoked, drank and knew "wild west" stories.

Boy of 11. Remarkable influence over his playmates. Bought cigarettes and persuaded the boys to smoke them. On one occasion he got the other boys to help him in vexing a substitute teacher.

Boy of 14. Leader of a crowd of half criminals. Large, fine physique. Is a bully, walks with slovenly gait and hat over one eye. Gives "smart" answers and vexes his parents and teachers almost beyond endurance.

Boy of 14. A kind of lawless fellow. Leads a gang of his friends whom he has caused to begin stealing. They do as he says because they dread his ridicule. Is daring and skillful at feats.

Wealth, dress and social station have little influence till well toward the adolescent years, but at this period they become an important factor, especially with the girls. A few examples illustrate the type:

Girl of 13. Sets the fashions for all her followers. They model their luncheons after hers. She is beautiful, polite, and perfectly adored by her friends. She chooses the games and settles disputes.

Girl of 11. Her great influence over us was due to the wealth and prominent position of her parents, and to her fine clothes. She used to wear silk dresses at play and this made us think she must be very rich. Her mother was stylish and haughty.

Girl of 10. Her leadership depends entirely on the prominence of her parents and on her beautiful clothes. She is selfish, not good looking, and not at all bright in her studies, yet she has the other girls completely under her control. Whatever she does, they follow suit.

Girl of 16. A leader in everything. She is one of the oldest of her set, has prominent parents, and dresses handsomely. Will have nothing to do with anything unless she manages it. As this is about her only fault, the others readily give up to her.

Boy of 12. Leadership due altogether to his prominent social standing and to the fact that he has travelled. The boys adopt every plan he proposes. They imitate even his dress. He used to go around much without a hat and all the other boys got into the same habit.

Boy in a private preparatory school. Was looked up to and allowed to have his own way because he was the son of the college president. He was too conceited for any one to like him, but he was followed for sake of policy. This lasted also through his college life.

Girl. Leader through grammar grades and high school. Was poor in her studies, and of hateful disposition. Owing to her prominent family, good looks, and flattering ways, however, she had great power over us.

Several different sorts of leadership can be made out from such miscellaneous returns as the following:

Girl of 12. Whenever she talked to a girl she made her feel that she was her very best friend. Yet she often talked about some of the girls. Her charm was so great that they still clung to her even after they knew of it. Always went with younger girls and was happy and jolly. Really not true to any one.

Girl. Leader in the grammar school. Led nearly all the parties. Once got a half dozen of us to "bolt" school, although we knew we should be punished for it. She was a dunce in her books, but good looking, and full of fun.

Girl. Gentle, winning way. In the game of "house" she was always chosen "mother." She guided us in nearly everything we did. Some did not like her simply because she was a leader.

Girl. She had so much influence over us that when she refused to obey the teacher we usually refused also. Whenever the teacher could persuade her to do a thing there was nothing to fear from the rest of us. Force of character and ability to give others a good time.

Girl of 12. Was always wanted to lead. Could always bring her followers to time by threatening to leave them. Dressed well and was able to manage things, For a time a new girl joined the group and she also wanted to lead. There was always trouble when the two were together, but if one or the other was at home everything went along peacefully.

Girl of 10. Leader of a group in school. When they play school she is teacher. She manages the games and assigns the parts. It is very rarely that her wishes are opposed. Two years older than her followers.

Girl of 14. Had a way of making you feel your own way of doing a thing inferior. A confident air and good power of expression.

Girl. Leader in the grammar school. More mature in her ways than the others were. Her mother was dead and she had long had the care of the home. Bright and studious.

Girl of 15. Her opinion was always sought. Three things worked together to make her a leader. She was of wealthy family, had great personal charm, and had always been used to having her own way at home.

Girl of 10. Some of her followers are older by two or three years. She is small, active, impulsive, and ranks well in all her school work. She has several faults, but her followers overlook them.

Girl of 10. Leader of quite a number. She seems to know just how to act when her friends are around. They play few games that she does not suggest and manage. After they had organized a "society" one day, she suggested that they have a "fair." This they did. Good looking, dressed well, and had wonderful natural tact in getting along with her playmates.

Of three boys I know one is decidedly the leader. He is two years older than the others, larger, stronger, and has seen more of life. He knows just what he wants to do and goes right ahead with his orders. There is nothing for the others to do but "fall in."

Boy of 9. An "only" child and used to having things his own way at home. At school he is domineering. When he can't get boys of his age to obey him he joins a group of smaller boys whom he can "boss."

Boy of 14. Leads an entire class of nine boys. He is selfish, but full of tact. If they won't do as he wishes he will bribe them. He is oldest and is captain of their foot ball team.

Boy. Good student, poor, but handsome, frank, and ambitious. A high sense of honor. He was a leader through the common school, high school, and is now the president of his senior college class. He has always been distinguished for his natural manly qualities.

The term leadership has such a broad application and is described by so many general and indefinite adjectives that it is impossible to judge the real significance of all the cases given. We must, for instance, carefully distinguish the "general favorite" from the actual leader. The former may be only a "clever fellow," "nice boy," "sweet girl," or a "jolly good companion," etc. Yet after liberal allowance has been made for unconscious exaggeration and for inaccuracy of description, there still remains much interesting evidence of the potency and direction of leadership among children and youths.

The group activities of the playground and street are crowded with object lessons that sink to the marrow. They show their influence on the character long after the memorized text book has been forgotten. It would be hard to say how much of one's total *effective* education is gained from this personal contact, with its accompanying conflict, dominance, and submission. It must, however, be considerable. The Duke of Wellington declared that the battle of Waterloo was won on the play ground of Eton. It has been also said[1] that whatever field of human leadership one ransacks, it is found largely Etonian. From the history of a few representative schools it does seem that they develop the qualities of character suitable for leadership. At least it is one of the problems of the school to give free and healthful play to the instinct of leadership, while at the same time so controlling conditions that no injury may result to those of more timid disposition.

[1] Dr. W. H. Burnham. Unpublished lecture.

Among many there is a real passion for leadership. Of those sending returns, twenty-one state that at some period in their lives they were leaders of their playmates. Several others mention a desire to lead, and some recall the envy with which they regarded others who were readier in activity and exerted more influence. Others consciously plan how they may acquire greater influence. The same is borne out by the fact that few cases of unconscious leadership were given. Several state that so far as they have observed, all such leaders are conscious of the influence they possess even though in many cases they do not strive for it.

There were several examples of evil resulting to the character of timid followers. One girl tells how her older sister had such sway over her and such a contemptuous way of treating her suggestions that she came to lack all confidence in herself. In her opinion she has not yet outgrown the evil effects.

It seems that initiative and leadership are sometimes matters of habit. The habit, however, will develop only when nourished by self confidence. If one is too early made conscious of one's weakness and shortcomings by stronger friends, the chances are that a chronic timidity will make the person for life a follower and hanger-on instead of a leader. It is essential to the healthy development of any youth that in something or other he should feel himself superior to any one around him. If leadership does not develop in youth, it is never likely to appear, or if it does, only in narrow lines.

To many children, whatever is strange or new has an aura of mystery and superiority about it that takes them off their feet. Their own possessions, their own games, their own thoughts, all things they are accustomed to and know, are inferior to what they see others busied with. This is especially true when the other person is a new comer or stranger. Several returns show that the child who leaves one school and enters another is likely to be either very popular or very unpopular from the first. Very unpopular if his ways clash too much with those of his new comrades. If his ways do not positively offend, he is likely to have marked influence, at least until his ways have become familiar and trite. Each feels that the possessions of the strange child are more precious than his own; that the experience of that one renders his own trivial. Training should counteract this tendency. As it is, the trait often does not disappear even in adult life, though it is a menace to happiness and success. As Emerson points out, one of the most difficult steps to self reliance is to discern the true value of the *right here* and *right now*.

About a dozen of the leaders are mentioned as only children. This is significant, considering that the questionnaire does not

suggest the influence of this factor. It must be supposed, therefore, to have been operative in many cases in which no mention was made of it. About a dozen others were described as children who were allowed to have their own way at home. Such children are much like the only children. Both classes are likely to show a domineering attitude toward the other children. If the character of such a one is striking he becomes a leader. If not, he is disliked, quarreled with, and in some cases becomes an outcast. Sometimes, if unable to rule among his equals, he associates himself with the smaller boys, over whom he can domineer more easily. In this connection it should be mentioned that of the 269 only children studied by Bohannon, 134 got along badly with others, 54 fairly well, and in only 81 cases were their relations normal. The reason given is the desire to rule.

Most of the revolts described were due to a single cause, *i. e.*, the too conscious assumption of power. In one case it was said the leader was deposed because he boasted that he could make the others do anything he wished. This is typical. Children don't object so much to leadership, but they dislike that any one should assume it with show of authority. Other examples were given of children bringing ridicule upon themselves because of too evident striving for influence.

Outcasts.

The opposite of the leader is the outcast. 259 cases were described in the returns. 208 were girls; 51, boys. Such qualities as teasing, domineering ways, quarrelsomeness, selfishness, bad disposition, etc., received mention with 33% of the girl outcasts, and 50% of the boys. Slovenliness, ugliness, filthiness, etc., with 26% of the girls and 14% of the boys. Dullness, ignorance, stupidity, slowness, with 24% of the girls and 30% of the boys. Complaining, fault-finding, sulkiness, spitefulness, tale-telling with 17% of girls and 28% of boys. Haughty manner, egotism, conceit, pride, with 21% of girls and 16% of boys. Timidity, lack of spirit, weakness, tendency to cry easily, with 9% of the girls and 16% of the boys. Social standing and poverty with 10% of the girls and none of the boys. Other qualities receiving more or less mention are the following: bluffing, braggadocio, crankiness, queerness, forwardness, inquisitiveness, bad manners, rudeness, bad temper, cruelty, dishonesty, jealousy. Twelve girls were outcasts because they were the teacher's pets. Five girls and two boys were avoided because of the influence of leaders who disliked them. Ten girls and three boys were mentioned as only children. The following very much abbreviated returns illustrate most of the types described:

Boy of 10. Only child, babied, selfish, and ill-mannered. Others drove him from the games.

Girl of 12. Shunned by all the other girls. Boastful, intruding, talks of her dress. Yet is obliging and not malicious. Is good to her mother and liked by older people.

Boy. Avoided by his classmates. The cause was their jealousy. Teachers and elders take great interest in him. Is shy and retiring. Went to college at 16 and became very popular.

Girl. Bold, forward, domineering, shabby, "smart," petted by the teacher.

Girl. Good, bright, pretty and neat. Outcast because she was at outs with a powerful leader. She would not run after people.

Girl of 8th grade. Wealthy, bright, pretty, and haughty. Always tried to make us see her superiority.

Girl of 12. Was outcast because she was untidy. The teacher persuaded us to take her into our play. All of us agreed but one girl, then the latter became an outcast.

Boy. Selfish, spoiled, over-bearing. Was an only child.

Boy. Outcast because he was girlish and did fancy work.

Girl of 10. Unbearable disposition. Yet she was the brightest in the class and was well dressed.

Girl. Disliked by all the pupils. Was the teacher's favorite. Always telling tales and getting others into trouble.

Boy. A negro child.

Boy. His father a saloon keeper.

Boy. A braggart and coward. The dislike followed him throughout school and out into the world.

Boy of 11. An only child of good parentage. Was cowardly, unresponsive and troublesome.

Girl of 16. Very pretty, over-dressed, vain, cruel to animals, ill-mannered, wanted to be babied. Yet was quite attractive at first meeting.

Girl. Queer ways made her a target for persecution. Could only get others to walk with her by bribing them with candy. She always had money. Mentally deficient. I was sorry for her, but could not befriend her for fear of losing popularity.

Girl. Became an outcast because of incurring the enmity of the leader.

Girl. Always neglected and scorned. Had no spirit, never became angry, was thoroughly despised.

Girl. No one would talk to her. She was laughed at and plagued. Not very bright and was larger than her class.

Boy. Exceedingly polite, never in scrapes like the other boys, would not play games and went around dressed up.

Boy of 12. Most unpopular I ever knew. Untidy, ill-mannered, rude, selfish, spoiled, sneaking. A cry-baby.

Boy of 10. When he came near, the others always stopped their game to keep him from joining. Conceited and cowardly.

Girl. Unpopular for several years. Older than her class. Bad appearance and ugly manners. Slovenly. Could not articulate distinctly.

Girl. Very poor and slovenly. No one noticed her. She walked the yard alone.

Girl of 10. A tell-tale. We called her "C. T.," which meant "cranky tattler."

Girl. No one in the class cared for her. They would not even sit near her in class. Very homely and untidy. She wanted to be a leader.

Girl of 12 or 13. Very unpopular. Slow in school work. From a low family, immodest, immoral, and rude. Was much older than her class.

Girl of 10. Forever whining. Such a bore that none of the other girls would have anything to do with her.

Girl of 12. Had a queer looking face. The other girls were to blame for not liking her.

Girl of 11. Disagreeable, contrary-minded, always correcting other people's faults. Would not join in the games.

Girl. Disagreeable and "stuck up." Calls the other girls "common people." Selfish.

Girl. Large and fat, sour looking, quarrelsome, a tell-tale.

Girl of 14. A social outcast because her mother was a washerwoman. Later, in high school, we liked her and regretted the way we had treated her.

Girl. Through dishonest work received good marks in her lessons. The rest of us hated her for this.

Girl. Exceedingly timid, soft whining voice. All tormented her and avoided playing with her.

Girl. Disagreeable and reticent. We would always abandon a game if she came to play with us. She was homely, poor, and impolite. We would not go to a party to which she was invited.

Girl. Some would always refuse to play in a game with her. She was ugly, stupid, and of poor social station.

Girl in high school. Always tried to boss and be a leader. When our teacher chose her for class prophet we sent in a petition to have her removed.

Boy of 15. Disliked by boys and girls. "Was made up chiefly of etiquette." Was almost hated by children of his age but fairly well liked by older people.

Girl of 6th grade. Much disliked and neglected because she was stupid, awkward, mean and deceitful.

Girl of 13. Boastful of her possessions. Would hardly talk of anything but herself and her family. Full of conceit. We always stopped our game whenever she came to play with us.

Outcast children offer a difficult problem to the teacher. Great tact is required in trying to help matters. Several returns show that the teacher often only makes matters worse by going to extremes in befriending the outcast. The mode of procedure must depend upon the cause. If the outcast child is disliked because of timidity, backwardness, ugly features, poor clothes or poverty, the strong teacher can certainly do something to inspire more humanity in the other pupils. On the other hand if the outcast is extremely unlovable in disposition the problem is much harder. An effort should be made to improve the character and disposition of the outcast. If this cannot be done, little may be expected beyond preventing the other pupils from exhibiting their dislike in overt acts of retaliation. Likes and dislikes are as passionate with children as with adults and are far less easily controlled. It is in many cases useless to endeavor to arouse much love and sympathy for the outcast. Every case must, however, be dealt with on its own merits, at the same time keeping the general moral tone of the school the highest possible.

Many cases given are altogether ephemeral and accidental. One or two pupils begin teasing another, and the others join with them, virtually making the pupil an outcast for a few days. If certain influential ones neglect a pupil, the others are likely to take a little pride in "cutting" him. The teacher should keep on the lookout for such cases to prevent them from becoming more serious. A word or two will generally be sufficient to make the pupils realize the injustice of their treatment.

Bluffers.

Bluffing may or may not be an element of leadership. About 420 bluffers were described in the returns. Most of the descriptions were very similar. The following condensed replies illustrate the common type with its main variations:

Girl. Reads her lesson only once and bluffs her way in recitation. She makes a good showing except on examination. Is bold and generally frank.

Boy. Lazy. Used to copy his lessons from the others, and in class would ask many questions to make the teacher think he was interested.

Girl. Not very bright in her studies, but with a certain frankness that "took" she used to make her way pretty well.

Girl. Bright but depends on bluff instead of hard work to carry her through. On the whole is frank and courageous.

Boy. Went entirely through school on his bluffing. He never studied. Was exceptionally quick, and good at guessing.

Boy of 12. Does not study, but manages to answer in such a way that the teacher will think he has.

Girl. Is scholarly and full of mock courage and frankness.

Girl of 18. Not a very good scholar, but recited by talking a good deal in a decided tone of voice. Courageous and frank.

Boy. Used to talk all around the question. Generally received good marks on examination because he was able to cram. Not very frank, although he pretended to be.

Girl. Genuine bluffer. Volunteers much in recitation and says much not to the point.

Boy in high school. Our class historian. Went through the whole course on bluff. Would skim through, get a faint idea of what the lesson was about, and then fill in from his fertile imagination. Pretended great honesty. He was a born bluffer and certainly exerted a very bad influence.

Girl of 14. Worst bluffer I ever saw. In the Latin recitation she always tried to hide behind free translations. If cornered she usually escaped by turning the question upon the teacher.

Girl of 14. Pretended to her schoolmates that she never studied her Latin lesson. Yet her lessons were always perfect. We disliked her for this.

Boy in high school. Knew very little, but in recitation would rise with an air of "this is too easy." Would then hem and haw, and end by asking the teacher an irrelevant question. Had little courage or honesty, but talked big about what was "square."

Boy of 17. Never knew his lesson, but had more to say and suggest in the class than any one else. After recitation he often boasted to the others of his "game of bluff."

Girl of 16. Bluffs in all her lessons. I think she knows we understand her and that she bluffs just for the sake of doing it. She talks as though she were honesty itself. I don't think she can help her bluffing.

Girl. Typical bluffer. Never knew her lesson but always recited. If the teacher did not approve her recitation she would say the same thing over again in different words. She disgusted us by boasting of how she bluffed the teacher.

Girl. Known throughout the school as a bluffer. In recitation she never stuck to her topic. Daring and courageous. Ridiculed by the class and not trusted.

Girl. Bluffed her way through the high school. In recitation always kept her hand raised. Never owned that she did not know. Always agreed with the teacher. Agreeable manners.

The composite of the descriptions given above would be something like the following:

The bluffer is courageous in attitude, appears frank, and yet is dishonest in varying degrees. He is keen-minded and alert for clues. Though his knowledge is usually superficial and well scattered, he is at the same time glib-tongued and able to express more than he knows,—able to cover up ignorance with words. His frankness throws people off their guard. Courage is his deepest virtue for he must be courageous to bluff. For the most part he has an exaggerated faith in himself. The latter is no doubt in some cases acquired. From a beginning in fear and trembling, the habit, if successfully continued, involves necessarily the keeping in consciousness of one's strong points and the forgetting of one's weaknesses. This is the prime condition for the development of conceit.

As to the moral effects of bluffing in the school:

Bad effect on other children. Their ideals are lowered when they see success can be won by deception.

The bluffer is a nuisance. The teacher is slower to find him out than the pupils are. Bad reaction on them.

The successful bluffer makes the other children discontented. In despair they are sometimes tempted to try it themselves.

Bluffing ruins the bluffer. The influence is bad also on others, as it makes them think they too should get through without work.

The teacher is often slow to find out the bluffer, and unless he does, he is soon lowered in the eyes of the pupils.

A single bluffer, if successful, will breed discontent, dishonesty, and carelessness in the work of the entire school.

Successful bluffing discourages the other pupils. They either take to bluffing in self-defense or else they dislike the teacher and think her unjust.

Bluffing is always discovered by the pupils first and the effect is demoralizing. The teacher soon loses the respect of the pupils.

Bluffing is disliked by the most of the children, and yet the successful bluffer is more or less imitated. It must not be tolerated.

Children learn to bluff by being in school. It gets worse all the way up. There is more in the high school than the grammar school, and still more in the normal school. It increases because teachers countenance it.

Several of the above suggestions, and particularly the last mentioned, are serious indictments of the teacher and the school. For the most part bluffing is acquired. Very few cases are mentioned under 11 or 12 years of age. Yet in the higher grades the bluffers are so common that few schools are without one or more. Only a very few of our correspondents have not come in contact with them.

Do our schools breed the bluffing spirit? From a careful reading and re-reading of these 420 replies I am thoroughly convinced that they do. The teacher herself too often sets the example. Misled by a false idea, she is timid about owning her own ignorance of anything. She acts as if she knew everything, and the pupil soon learns to do likewise. Moreover our monstrous method of recitation in the lower grades is perfectly adapted to the development of an artificial atmosphere between teacher and pupil. Children of 8 or 10 years are given a half-hour or hour to study (!) and then the teacher takes a half hour to have them tell over what they have learned. The one who talks the most, and with the most knowing air is praised. The one who is bothered by the complex relations of the subject, and is too honest to pretend to any knowledge which he only half possesses, is too often scolded as lazy. The former pupil soon becomes a full-fledged bluffer. The latter at first despises him for it. Later he learns to locate the fault more correctly and despises the teacher instead. There is then nothing left for him to do but to learn the game in his own defense.

I agree, with the last quotation above, that it gets worse in the higher classes. In the country school that I attended I can think of one or two. In the high school, a half dozen at least; while I would not even venture a guess at the number I have known in normal school and college. Even in college I have seen the affair reach the critical point of being a kind of hide and seek game between the instructor and his students, or rather a kind of dodge and parry duel, the chief aim of either side being to keep the other from discovering a weak point.

Dr. Hodge[1] finds this spirit the most serious obstacle to the introduction of dynamic biology in the high school. The subject is so boundless, and one brushes so easily against the present limits of human knowledge, and especially of the *teacher's* knowledge, that the teachers dread to have to say continually "I don't know."

The same dread appears everywhere else, in perhaps less intensity, and everywhere makes teaching stilted and artificial. The inevitable effect on the character of the bluffer is too obvious to require emphasis. The demoralizing effect on the

[1] Dynamic Biology, *Ped. Sem.*, 1904, pp. 381-404.

school cannot be doubted. Teachers should bathe themselves in the simplicity of Socrates. They should adopt the practice of hounding the bluffer till he consents to appear in the open and fight fairly. Under such a teacher bluffing will disappear.

(B.) *Children's Ideals.*

Studies of children's ideals are all interesting when viewed in connection with leadership. Estella M. Darrah, Earl Barnes, Catherine Dodd, Will Grant Chambers and others have allowed several thousands of school children of different sex, age, and environment, to answer some such question as the following: "What person of whom you have ever heard or read would you most like to resemble, and why?" The results of all are broadly similar. The total result seems to be that nearly as many girls as boys take the purely virile type as their ideal. In the primary grades, goodness, possessions, and marvellous powers are most often named as ideal attributes. In the grammar grades the last two attributes are largely supplanted by courage, freedom, wisdom and honesty; while at the beginning of the high school age, altruism, patriotism and ability to lead take a more prominent place. Girls name a larger proportion of writers, artists, musicians, philanthropists and literary characters; while boys select more soldiers, adventurers, financiers and inventors. Usually the girls lead in naming moral and altruistic qualities. Degrading ideals are almost wanting. When such are named it is usually on account of some quality or power which in itself is not bad.

Kratz[1] investigated the preferences shown by children for their teachers. He finds that dress, personal appearance, patience and politeness come in for a surprising amount of mention. In a study by J. R. Street,[2] the voice, dress, manners, good looks and religious activity are the qualities of the teacher most often named by the pupils as having appealed to them.

Haskel, in a report on imitation among school children,[3] says there is always a reaching out for the conditions of those who are larger, stronger, more regarded, and freer in their activities. F. G. Bonser[4] finds that environment is more decisive than temperament in determining the choice of youthful friendship. A large percentage of the reasons given for the selection of chums indicate only an *occasion* of the friendship and not any special source of attraction. The results of the work of Barnes, Shaw, O'Shea and others on the interests of childhood, indi-

[1] Characteristics of the best teacher, *Ped. Sem.*, 1895.
[2] Moral Ed., *Ped. Sem.*, Vol. V.
[3] *Ped. Sem.*, Vol. III.
[4] Chums; a Study in Youthful Friendship, *Ped. Sem.*, 1902.

cate that children are particularly interested in action, and that this is more true of boys than of girls. Bohannon, in his study of "peculiar and exceptional children,"[1] finds that those with advantageous traits are either strong, courageous, large, deft, agile, beautiful, clean, generous, pathetic, buoyant, orderly or obedient. 427 children are reported in his returns as popular among their mates for one or more of the above reasons. 448 were disliked because they were either ill-tempered, whining, cruel, selfish, ugly, deformed, birth-marked, untruthful, small, dirty, timid, disorderly, disobedient, gluttonous, nervous, clumsy, spoiled or possessed of sense defects. 126 are classed as neutral. These are the buffoons, the frank, the loquacious, the imaginative, the dignified, the teasers, the silent and the dainty.

Objection may be raised to citing studies in ideals as bearing at all on the question of leadership. It depends on what active power our ideals have over us. Do we really control a person's life when we control his ideals? Or is leadership dependent altogether on some indefinable personal magnetism that may even be embodied in a most unideal person? The question is important. It must be supposed that children, like adults, often have vague longings to be things which they do not soberly expect to be. It may further be true that while thus vaguely holding a lofty ideal in the background of consciousness they yield to the leadership of persons they do not entirely respect. In general, however, it can be seen that such person is a leader, on account of the possession of some really admirable trait. As one author states it, it is not the cruelty and dishonesty of Jesse James, but his bravery and dash, that appeal to boys.

This study was begun in the autumn of 1902, at the suggestion of Prof. E. H. Lindley, of Indiana University. I desire to express my very great obligations to him for assistance in planning the experimental tests and for numerous suggestions. I am indebted to Pres. G. Stanley Hall and the other members of the Clark University faculty for valuable criticism.

My thanks are due to Supt. Beck and the teachers of the Bloomington public schools for their co-operation in making the tests, and to Mr. Claude Price, Mr. E. R. Ray, and Mr. J. A. Linkie of Indiana University for valuable assistance. I desire also to express my indebtedness to all those who have contributed questionnaire data, and to Mr. Louis N. Wilson and his library assistants.

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[1] *Ped. Sem.*, Vol. IV.

STUDIES OF A CHILD. II.

By Alexander F. and Isabel C. Chamberlain.

OUTLINE.

Introductory.
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XXIII. Words with Special Meanings, etc.

This second chapter is made up chiefly of linguistic data of psychological and pedagogical interest. The material here recorded covers several aspects of child-speech concerning which the evidence hitherto published has been by no means exhaustive or convincing. Detailed discussion of some of the points involved will take place later. The period concerned is practically the speaking epoch of R.'s life up to the present time (she is now in her 40th month).

The appearance of another "spontaneous language" deserves special notice. The series of "definitions" exhibit the influence of a changed environment. The parareduplicative and pseudo-primitive forms of many child-words invite further research. The section on the words for "father" and "mother" reveals a rather unsuspected variability in such terms. Other sections treating of the constituent elements of language contain new data. Where phonetic spelling is employed the consonants have their ordinary English sounds, the vowels the

continental (E is the indefinite vowel of the phoneticians). Otherwise the ordinary English speech is given, as previously. On the whole, R. now shows a good command of the chief machinery of conversational English, with the usual *naïve* "breaks" and "inventions."

I. *Agglutination*, *Holophrasis*, etc. When R. began to use English fluently, after her fashion, she "cut" many words, ran several together in a manner analogous to that of the speakers of certain primitive (*e. g.*, American Indian) languages. Thus, while using *táther*, *máma* for "father" and "mama," she would often "reduce" these, as in the following phrases: *Ta'*, don wite zat aden (Dec. 16, 1903). *Tā'*, don wite any mōa (Dec. 16, 1904). M'-hap-a buil' 'ose pools (Oct. 8, 1903). M', put tumpy else on ne'a (Oct. 8, 1903). M' dott-a wite aden (Oct. 8, 1903). At the same time she cut "bēbī to "bē." On the other hand (Oct. 8, 1903), she several times called her mother *mīmī-máma-mótha*. At this period she often cut *let* to *lĕ* and *leave* to *lī*. Of more complicated "cutting" and agglutination these examples may be cited: We are *dōn-da-watsh* dīses (March 9, 1904). Máma *háp-a-hab* 'at patton (Oct. 8, 1903). M'*háp-a-buil*' 'ose 'pools (Oct. 8, 1903). M' *dótta-wite* 'den (Oct. 8, 1903), etc. Her speech abounded in the agglutinated: In-ne (in the), in-a (in the), tome-a (some of), alla-a (all of), on-a (on the), a-lot-a (a lot of), tor-a (for the), op-a (off the,) det-a (get-the) and the like. Worthy of special note are: Dit-a (this is the), zat-a (that is the), nē-a (in there; in here), nen (and then). Here belongs also, perhaps, *mwoom*, apparently for "in the (other) room." In the summer and fall of 1904 she was prolific in such expressions as "plummy," "peachy," "manary," "apple-y," "walk-y," "lappy," "go-out-y," etc. At present (Sept.-Oct., 1904) she says "I am peachy," "I am manary (banana-y)," etc., but formerly it was oftener "I *feel* peachy." On August 20, 1904, she was recorded as saying "I'm a *plummy* girl; I feel *plummy*." In September-October, 1904, she was fond of using expressions of the following sort: I'm go-out-y, I'm drink-y-water-y, I'm back-yard-y, I'm get-y-down-y, I'm tather-lappy (*i. e.*, I want to get into father's lap), I'm tather-carry-y (*i. e.*, I want father to carry me). The y is doubtless from analogy with "thirsty," "sleepy," "naughty," etc. In jesting fashion, apparently, she also says "I'm one-y," "I'm two-y," etc. On November 11, 1904, she said "I'm candy-y," and later in the month she was still using a few terms of this sort,—"Are you tea-y, tather? Do you feel coffee-y?" etc.

II. *Analogy*, etc. Of the following additional examples of analogy, transferred meaning, etc., some are of very special interest. Among these are *warm* = "timothy;" *water-melon* =

"flowers of steeple-bush;" "*crumbs* of light;" *ginger-ale* = "foot asleep." The chief instances follow:

1. *Ice-cream.* Sometime during the fall of 1903 she said the clouds in the sky were "like *ice-tream.*"

2. *Bath-tub.* On June 29, 1904, she called the railroad turn-table at Portland, Me., a "bath-tub." This name she also applied, a little later in the summer, to the wood and coal bin of the cottage at Bayville.

3. *Warm.* On July 3, 1904, she brought two spears of timothy to her mother, saying "Here are tome *warms!*" She had not by the end of October ceased to use the word in this way. Moreover, she now applies it, also, to certain other tufted and feathered grasses.

4. *Duster.* When out in the woods, on July 2, 1904, she called some long-stemmed ferns *dusters.* When asked where she had seen "dusters," she said "at Barnard's" (*i. e.*, Barnard and Sumner's store in Worcester, Mass.) These were probably feather-dusters.

5. *Crumbs.* On the evening of July 4, 1904, seeing the sparks, etc., from Roman candles and other fireworks at Bayville, Me., she exclaimed: "Tee the *trumbs* of the light!"

6. *Hot water.* On July 4, 1904, she called the sea with foam "hot water."

7. *Christmas-tree.* At the present time (Oct., 1904) she still calls firs, pines and all kinds of evergreens "Chris'm trees," from analogy with her Christmas tree at home in 1903. During the summer, while in Maine, she divided trees into "Trisam trees" and "leaf-trees."

8. *Butterflies.* On July 19, 1904, she said to her mother: "Aren't *mothies* (*i. e.* moths) butterflies?" When her mother replied that they were not butterflies, but were something like butterflies, R. observed: "Oh! they are tomethin' like butterflies."

9. *Fan.* On July 22, 1904, she said that the capital letter Q on her building blocks "looks like a *fan.*"

10. *Sail-boat.* On July 24, 1904, she said that the figure 4 at the top of a page of the magazine she was "reading" to herself was "a tail-boat."

11. *Mud.* On August 1, 1904, seeing the fog clouds, she exclaimed: "That's *mud* up inne ty!" About the same time she called the droppings of horses and cows "horse-*mud*" and "cow-*mud*" respectively.

12. *Tide.* In the summer of 1904, while at the seashore, she called the "float," to which boats were tied, "the tide." It is possible that she confused her the *tide* and the *tying* of the boats. She said that she liked to see "the *tide* 'dance.'"

13. *Water-melon.* On Aug. 5, 1904, she said of the flowers

of the steeple bush (*Spiræa tomentosa*) that they "looked like *water-melons*." Evidently from the reddish or pinkish color of cut slices of water-melon.

14. *Iron.* On July 8, 1904, when told that her bath tub was made of galvanized iron, she asked, "How did they *iron* it?"

15. *Lettuce.* On July 23, 1904, she picked a handful of bayberry leaves and brought them to her mother saying: "I've dot tome *lettuce* who pells (smells) good."

16. *Ginger ale.* On Sept. 3, 1904, her foot "went to sleep." Feeling of it, she said "It's just like *ginger-ale*." She had tasted some ginger-ale several months before and remembered the effect of it upon her throat, etc.

17. *Feet.* On Sept. 7, 1904, noticing that some stones had been placed the night before under the over-ground water-pipe near the cottage, she said "Who put feet under the pipe?"

18. *Rose.* On July 11, 1904, it is recorded that she was calling wood-lilies roses and water-lilies pond-roses. The former she also called "wood flowers."

19. *Buoy.* While out sailing on Sept. 6, 1904, she noticed the red buoys marking the navigable waters, and was told what they were. Soon after, seeing a rather large one, she said that it was "a red *man*."

20. *Pipe.* On Sept. 22, 1904, she spoke of "the long pipes who stick up," meaning thereby the telegraph poles alongside the streets and roads.

21. *Gnats.* During the summer of 1904 (*e. g.*, July 1) she called ants, in which she seemed to take a great deal of interest, *nats*. She had become acquainted with "gnats" some months before at her home in Worcester.

22. *Bathing-hat.* On October 27, looking at a picture of the Madonna and Bambino, she pointed to the halo of the latter and said: "I want one of those little things—*bathing-hat*."

23. *Braid.* On October 30 she said of some twisted doughnuts, "What are those *braid* things?"

24. *Skin.* The same day, looking at her tray on which some of the paint had come off, leaving the tin exposed, she said "The *skin* has come off my tray." A little later she said of a dark spot in the ceiling caused by a water-leak, "The *skin* has come off the ceiling."

III. *Caressive Repetitions, Playing with Words and Phrases*, etc. When newly in the possession of certain words and phrases, she often took delight in repeating them over and over again, applying them often to many persons and objects of her environment, sometimes using them as caressives, at other times as "playthings" almost. Following are examples:

1. *How do you do?* In the spring of 1903, (April 16, she is recorded as saying: Dáda hau dū, hau dū dū?) She became

possessed of her version of "How do you do?" which, at first, she seems not to have used very extensively. On April 5, and also few months later (May 2), she had a "fit" of using this phrase: Hau dū máma? Hau dū pápa? Hau dū bébé? Hau dŭ dótī? Hau dū títi (Kitty)? Hau dū Chlēdī (Sadie)? Hau dū tō (toe)? Hau dū pápa tō? Hau du bōbō (bottle)? Hau dū dĖbdĖ (cork, literally, "cover"). When taken out on the street she would say "hau dū?" to passers-by, especially, children, dogs, horses, street-cars, etc. On the evening of July 2, before being put to bed she said, "Tī mán-i-mūī" (I want to see the moon), and, when taken to the window, looked up at the moon and called out "Hau dū mán-i-mūī?" and, immediately afterward "Hau dū tāĖ (star)?" to which she added "TĖ wau tāĖ (turn round, star).

2. *Good girl.* Early in January, 1903, (*e. g.*, Jan. 6) she used to say to herself repeatedly "dood, dood dirl," a phrase she would also employ sometimes in answer to the questions "Who is baby? Who is Ruth?" It was, perhaps, in answer to a question of this sort that she began to use the phrase.

3. *A little bit o' baby.* During the summer of 1904 (*e. g.*, July 6) she was very fond of referring to herself as "a little bit o' baby," "a little wee bit o' baby," "a little tiny bit o' baby," which she would sometimes repeat in succession, "I'm only a little bit o' baby," etc.

4. *A big girl.* During the summer of 1904, even while using the phrase noted next above, she was fond of saying also on occasions "I'm a big dirl now," which, later on, in the fall and winter, became a favorite repetitive exclamation.

5. *I love you.* On July 6, 1903, she is recorded as having many times, that day and for some time previously, put her arms round her mother's neck and exclaimed "I love you, I love you, I love you, I love you," etc., etc. Her repetition here had a sort of rhythm about it. On July 11, she used in similar fashion "I like you, tather!"

6. *Who will take care of me?* In the spring of 1904 (*e. g.*, May 26), she used in this repetitive-caressive fashion "Who will take tare of me?" This sentence was employed often when she was alone by herself, also when she heard her father or her mother speak of going out of the room or out of the house.

7. *Eeny, miny, mo!* On April 13, 1903, it is recorded that she was "repeating again and again, as if it were some charm of her own," *eeny miny mo*, representing the "eeny, meeny, miny, mo" of the counting-out rhyme recited to her by her parents. On April 16, while "talking" to her dolls, she said several times "īnī màíní mō."

8. *Dooly-ooly-oo!* By June 2, 1903, she had come to be very

fond of repeating again and again "dūlī ūlī ū," a popular song refrain taught her by her parents and a friend.

9. *Poor pápa*, etc. In February, 1903 (as *e. g.*, in particular, on Feb. 24), she was very fond of repeating the phrases "pūr pápa," "pūr máma," "pūr Djak," "pūr títi" "pur dáda" (dolly), etc.

10. *Too tired!* Early in June, 1903, she was very much taken with the phrase "tu táiɛ!" which she repeated caressively and sympathetically *ad lib.* Thus: Bē tu táiɛ! Pápa tu táiɛ! Máma tu táiɛ! On June 8, 1903, seeing the dog Jack sitting down in the field she said "Dja' tu táiɛ! Dja tu téiɛ! and, the same day, seeing, from her window, a horse standing in the street, she observed "yat hâ tu táiɛ!"

IV. *Comparison.* A few more sentences involving comparison may be cited here. On August 25, 1904, comparing two of her walking-sticks she said, "Is this *mostly a bigger one?* (apparently, "Is this much bigger than this?") and "Is this *high enough* for this?" (*i. e.*, "Is this as high as that?"). On Sept. 22, she used the expression "yes I are, *either!*" On July 20, when in her bath-tub, she ended a long soliloquy by "singing:"

O the brightest day!
O the brightest day!

When going home from the direction of the University in Worcester there is a short cut from Downing to Shirley streets, and for some time past (*e. g.*, Oct. 1904), R. always said, when she reached it: "Let's go the *short* way mama!" or "I don't want to go the *long* way round!"

On Oct. 18, 1904, she said, looking at a horse in the street, "That poor horse has been standing there *so long!*" On Oct. 23, she asked her mother, "Am I heavy, mama?" And after her mother's answer, she said "So is tather heavy." During the month of October she has been very fond of "awful" in such fashion as "*awful* lovely," "*awful* nice," "I had an *awful* good time (Aug. 5, 1904), etc.

On Aug. 20, 1904, she said: "If tather had a window up there, he could see *real much better.*" On Aug. 27 she said "I'm not warm *quite yet,*" and on July 17, "This isn't *so quite sweet* enough for me" (*i. e.* "not quite sweet enough"). About the same time she more than once made use of "gooder," although she was acquainted with "better" long before then.

While on the road from Bayville to Boothbay Harbor, Sept. 5, 1904, she saw a brown caterpillar, and, on the way home, another brown and black at each end. She said; "The one on the bridge was n't *brown and black black*, but brown *by itself.*" For "brown by itself" she used also "brown all over." She says, however, "My hands are *all black,*" when they are dirty,

and "Coal is *all black*, isn't it?" On November 13, 1904, she said "I did *pretty most* of it."

V. *Definitions.* For comparison with the definitions previously recorded the following obtained at one sitting (Aug. 27, 1904) at Bayville, Me., will be of interest as showing the influence of a seashore environment. They were spoken in answer to the question "What is —— for?" and are given in the order asked and received.

1. *Boat.* To go sailing in. If the boat should tip, all the people would go in the water.
2. *Sea.* It's to sail sail-boats in. It goes up and down. Then the boats will come after the bridge [*i. e.*, wharf, float].
3. *Steamboat.* It's to sail.
4. *Island.* It's to go on.
5. *Rock.* It's to go on. Nasty rocks!
6. *Path.* It's to walk in. (Here she asked: "What is a road for?")
7. *Row-boat.* To row in.
8. *Horse.* To drag. And a pony 's to drag.
9. *Cow.* It's to say moo!
10. *Dog.* It's to say bow-wow!
11. *Bee.* It's to bumble-bumble. It's to say vŭ vŭ!
12. *Fly.* It's to fly around.
13. *Mosquito.* It's to bite you all up.
14. *Ant.* It's to crawl around.
15. *Spider.* It's to spider around.
16. *Moths.* When this question was asked, she said: "Mama, what are mothies?" and then observed; "They are to crawl around."
17. *Butterflies.* To butterfly around.
18. *Hornets.* To sting you.
19. *Snakes.* To not sting. They 're to crawl around.
20. *Frogs.* Crawling around.
21. *Toads.* Here she understood "toadstools" and answered: "Toadstools are to look at."
22. *Clams.* They are to dig.
23. *Shells.* They are to look at. To bring up (*i. e.*, from the shore to the house). After answering she asked "What are tail-shells (snail-shells)?"
24. *Grass.* It's to walk in. I'll show you (here she walks in the grass).
25. *Stone.* To trow in the water.
26. *Blueberries.* To eat.
27. *Blackberries.* They 're to eat too.
28. *Raspberries.* To eat too.
29. *Huckleberries.* Ar'n't good to eat.
30. *Bunch-berries.* Ar'n't good to eat.
31. *Ferns.* They 're to smell.
32. *Oak-tree.* To go in, and make a house, make a fire (she played "house" in a hollow oak-tree).
33. *Rose.* It's to look at, to pick.
34. *Fire.* To fire the fire in the gas-stove.
35. *Oil.* To put in that little stove.
36. *Hammock.* To twing in. To get in.
37. *Chair.* To sit down.
38. *Table.* To sit by.
39. *Couch.* To lie down.
40. *Lamp.* To put a light on.

41. *Flag.* To put on the roofs of the houses.
42. *Chimney.* Chimneys are on the houses.
43. *Window.* To look out of.
44. *Door.* To shut up.
45. *Piazza.* To have hammock on. To walk on too.
46. *Wood.* To put in the fire.
47. *Water.* To go in twimming.
48. *Mud.* To have horses walk on.
49. *Ball.* To play golf ball.
50. *Base ball.* It's to play base ball.
51. *Bird.* To fly and fly around, and eat crackers (she fed the birds on the piazza). They go up in trees and fly.
52. *House.* To go in.
53. *Bed.* To go fast asleep.
54. *Well.* To fish up water. (The same day she said: "Is tather going to the well to well up some water?)
55. *Books.* To look at.
56. *Shears.* To cut.
57. *Fork.* To eat with, meat and papatoes.
58. *Glasses.* To drink water of.
59. *Sand.* To dig in.
60. *Ribbons.* To put on your hair. Right there (pointing to her head).
61. *Basket.* To put clothes in,—big ones.
62. *Fences.* To climb over.
63 "*Indian Pipe*" (the plant). To not blow, to look at, to take home.
64. *Ropes.* To tie the boats.
65. *Letters.* To put envelopes in.
66. *Stamps.* To put on envelopes.
67. *Papers.* To look at.
68. *Money.* It's to pay candy.
69. *Seals.* To seal up.
70. *Jelly-fish.* To see, to look at.
71. *Sea-weed.* To look at.
72. *Soup.* To eat.
73. *Boys.* To gō'd around.
74. *Girls.* They 're to gō'd around too.
75. *Boynton* (a boy friend). To play around.
76. (*Naphtha*) *launch.* They 're to launchy around.
77. *Salt.* To put on papatoes.
78. *Pepper.* To pepper on your papato, and salt.
79. *Sugar.* To put in your tea.
80. *Lemons.* To lemon up, to eat up.
81. *Handkerchief.* To blow your nose.
82. *Mirror.* To look in.
83. *Camera.* To take pictures.
84. *Grapes.* To eat.
85. *Candles.* To candle.
86. *Shoes.* To put on you.
87. *Tree.* To tree around.
88. *Leaves.* To leave.
89. *Rubbers.* To put on you.
90. *Skunk.* To skunk around.
91. *Grasshoppers.* To come on the porch.
92. *Fishes.* They 're to fish up.
93. *Rings.* To put on your fingers.
94. *Watches.* To watch around. To time. My clock 's three o'clock.

95. *Nose.* To t(w)eeze.
96. *Tongue.* To lick.
97. *Ears.* To ear.
98. *Chin.* To "in." To chin.
99. *Teeth.* To chew.
100. *Eyes.* To look.
101. *Hair.* To put ribbons on.
102. *Neck.* To neck around.
103. *Hands.* To hand around.
104. *Feet.* To feet around.
105. *Knee.* To knee around.
106. *Stomach.* To 'tummy around.

Of these definitions Nos. 1, 2, 5, 8, 11, 23, 51, 63, 94 contain items, in addition to the meaning given, which reveal her activities, observations, etc. In connection with her definition of the sea, may be cited her remarks on July 18, 1904. In reply to the question "What is the sea?" she said: "Why it's the big water. Why, it does (dôz) 'way out there. It's to twim in, I thlink. Way out there! That's it does (dûz)! There are lots of houses over there, if you do (go) there. Right atross there, there's lots of water there!" In No. 5 she remembers the rocks after the tide has fallen. The "vŭ vŭ" of No. 11 is her own imitation of the noise made by the bee. Nos. 15, 17, 76, 80, 85, 87, 90, 98, 102–106, are due, wholly or in part, to a sort of linguistic "cussedness," prevalent for the time being. Her fondness for looking at things reveals itself in Nos. 23, 33, 55, 67, 71. The negative form of Nos. 19, 29, 30, 63, is worth nothing. Facts of her close-at-hand observation are the basis of Nos. 6, 13, 21, 23, 24, 26-33, 45, 49, 50, 51, 63, 70, 71, 91. Taken altogether, these 106 answers obtained from a girl three years old, at one sitting, must exhibit some of her linguistic worst as well as some of her linguistic best, for it was no small ordeal for one so young to be put through unexpectedly.

VI. "*Father*" *and* "*Mother.*" The record of R.'s progress in naming her parents is of considerable interest. By March 5, 1902 (eighth month) she was using in a general and indefinite manner and with no clear application to her parents, the sounds "pápapápa" (often whispered), "pápa," "apápa," "bábábáb, babábába," etc. On March 9, while looking into the mirror she said "pápa pápa." On March 8, when apparently desiring to call some one, she used "pápa pápa," and possibly applied it also to her father(?) In the morning, after waking up, she would say "pápa, pápa," as if to call some one. A day or two later she seems for the time to prefer the form "pápa" over "pápa pápa," and to whisper both of these rather than to utter them loudly. On March 12, however, she spoke "pápa pápa" loudly and seemed to address it to her father. On March 17, she was using "ma-ma-ma," when hungry, or

desiring like attention. By May 4 she was using "pápa," somewhat infrequently, a period of quiescence in its employment having occurred just previous to that time. But on the afternoon of that day she suddenly began to use "pápa" and "máma" with reference to her parents. By May 18 it was noticed that she was using "máma" for calling her mother more readily than she did "pápa" in reference to her father. On Sept. 28, pointing to her bath-tub she said "máma, dē bā!" By November 22 she was using *bab-mā* for "father," while employing *máma* for "mother,"—*bab-mā* has possibly some connection with *baba*, which at this time she commonly used to designate her own reflexion, etc., and also for "baby." On Dec. 19 it was observed that she applied *máma* to her father, using *pápa* rather seldom. At this time she seemed to be using also *dādā* with reference to her father. Her words for mother and father were affected by a tendency to prefix a- or *ā* prevalent at this period, and she used, with apparent pleasure, *amáma* and *apápa*. On Jan. 5, 1903, she was still calling her father *máma*, although applying it at the same time to her mother. A week later, she seemed to be trying hard to select *pápa* for "father" as against *pába*, *bába;* she also called him *máma*, *bā'-ma*, *pā'ma*, etc. On January 22, she saw her mother in the street and shouted *máma! máma! máma*. By Feb. 15, she was using *pápa* for "father" quite readily and easily again, and *máma* for "mother" seemed well established for some time past. On March 6 she called her father *bŏpa*, a stray variation, doubtless. On June 8 she said "*pap* pŏk" (father's pocket), although using *pápa* elsewhere; also "*máma* bē" (mother's bed), in like fashion. Long after *pápa* and *máma* became her usual terms she seems to have not been quite satisfied with them. During the summer and fall she was making the acquisition of the *father* of her adult environment.

Difficulty in the pronunciation of *f* and *th* evidently hindered her control of this word, but the early fall saw her in the possession of "tāthᴇ," selected after considerable previous experimentation with "tāda, tāta, tādᴇ, tāze, tādzᴇ," etc. The word *mother* she acquired rather easily. For some time, however, she would use quite often "pápa-tāthᴇ" and "máma-mĕthᴇ" instead of the simple terms. The useof "tāthᴇ" and "mĕthᴇ," was, of course, largely due to parental initiative, and R. kept her older *pápa* and *máma* as well. In the beginning of October it was observed that she not infrequently "clipped" her words for father and mother into *tā* and *mā* (or even *t'* and *m'* in sentences), a practice continuing for several months. On October 8, 1903, she called her mother *mīma-máma-methe*, which showed that the old order of things had not altogether passed away. Next she was fond of "táthᴇ dīᴇ" and máma dīᴇ,'

which terms of endearment she used with evident delight. By July 9, 1904, it was recorded that generally called her father "tāthE" or "tāthE dīE," quite often also "pápa." The same day she suddenly took to using *fåidi* for "father;" which was probably a result of her experimentation with the letter *f*. This, however, she used for a day or two; it was probably a premonition of "father," which in the middle of the summer (1904) she could, but did not use, not being encouraged to abandon the picturesque "tāther." On July 11, she had a spell of calling her father "tata" and "pápa-tāthE," lasting a few days. At the same time she took to calling her mother "nana" and "mama-méthE." On July 27 she was practicing, evidently, with *f*-words, for she used repeated "fāthE," besides "fish," "fEn," etc. Early in August she was using often for "father" *pápa*, and for "mother," *nána*. At the same time she employed occasionally "dádi" for "father," probably caught up incidentally from her adult environment. On August 11 she had a caressive spell in which she called her mother "mīma, mīma, mīma, máma," also *nana*. About August 20, she began to say "I want you to *pápa* me," meaning, thereby, that she wanted her father to take her up in his arms and hug her.. A few day later she had a spell of "pápa, bába, wápa," etc., with which she seemed much amused and contented. On Sept. 3, she was profuse in her expression of: "Come and *mother* me," "Mama I want you to *máma* me," "I want pápa to *tāther* me." A day or two before this she had exclaimed: "When I was a little girl, I called you *pápa*, and now I am a big girl, I call you *tāthe*." On June 6, 1904, in answer to the question "What is father for," she said: "He's a man. He's a tather."

Early in November, 1904, she still used occasionally, with a certain predilection, "tāzer" and "tāda" for "father." Having not been influenced to say father, which, of course, she can pronounce, she continues to use "*tāther*."

VII. *Favorite Phrases*, etc. Under this rubric may be listed a number of phrases which seemed to be her favorites and to be used by her with a great deal of satisfaction. Examples of such are the following:

1. *Hello, mama!* etc. On March 11, 1903, she is recorded as using frequently the phrases: "Hello, máma! Hello, pápa! Hello, Teddy (a dog)!" After practicing it some little time, she dropped it, using it very seldom. At present (Oct., 1904), she uses it occasionally as a greeting.

2. *Good morning*. By April 25, 1903, she had come to be fond of saying "Dood mōni, pápa," "Dood mōni, máma," etc. This phrase she had learned from her parents who encouraged her to use it.

3. *That way here.* On April 5, 1903, she is recorded as using frequently and with gusto the phrase "dat wē hiɛ" = "this way."

4. *All gone.* About the same time she was fond of using the phrase "all done" in response to such questions as "Where's your dolly?" "Where's the kitty now?" and the like. She would often repeat it over and over again, after something had passed out of her reach or her sight.

5. *Right here!* On April 5, 1903, it was noted that she used very often with predilection the phrase "wai hīɛ!" in answer to the question, "where's Baby." This soon developed into the "right here!" which she still employs. On April 10, she answered, "Wai hīɛ Wū!" *i. e.*, "Ruth is right here!"

6. *Making the river Dee.* During the summer of 1904, (*e. g.*, July 6), while at Bayville, Me., she was fond of digging alongside the veranda, where the rain dropped from the eaves. This she called "making the river Dee," which phrase had its origin from the fact that her mother sang to her for some time previously "The Miller of Dee."

7. *Some day.* While in Maine in the summer of 1904, when she saw a new path or walk in the woods, a new road, bridge, wharf, etc., she would exclaim "We'll do that way tome-day!" In this she took great satisfaction. For "tomeday" she occasionally used "tome time" (in the early summer of 1903 she was using "tɛm taim").

8. *Other day.* This, in the summer of 1904, was her favorite expression for "some other day," "some other time," "yesterday," "in the past," etc. When she recognized a familiar path in the woods, etc., she would say "We went there other day, did n't we?" or "Other day I was there, mama."

9. *All the time.* At the present time (October, 1904) she is still fond of using (she began employing it often during the summer) the phrase "all the time" in the sense of "for a long time," which expression she, of course, also knows. On Aug. 17, 1904, she said "I want to 'tay here all the time," meaning thereby "a long time," or "perhaps as long as I like." She uses this phrase when in her bath tub, or visiting (sometimes, "I want to stay a long, long time"). When she wishes to be very emphatic, she says, when asking for something: "Can I keep it *all all* the time?"

10. *Like a good father.* During the summer of 1904 this phrase was in constant use (she still employs it occasionally) by her when wishing her father to do anything. On Aug. 16, *e. g.*, she said "Tather, tome this way, like a dood tather!"

11. *What did you tay, tather?* Her familiar inquiry during the summer of 1904, when she had failed to catch something her father had said, was "what did you tay, tather?" At one

time she was repeating it, almost automatically, whenever spoken to. She still uses not infrequently "what did you say, tather?" In corresponding fashion she employed and employs "what did you tay (say), mama? This expression, "what did you tay (say)?" she very seldom indeed used to other people than her parents.

12. *Fast as I can.* During the summer of 1904 (*e. g.*, July 9) she would call out, as she ran along, "I'm tomin', tather, *tast as I tan.*" She was very fond of this phrase and used it with much expression.

13. *Two Dollars.* In the spring of 1903, she was fond of using the expression "tu dŏlɛ," which she had picked up from an item of parental expenditure. She would employ it when she played shopping, church-fair, etc., and generally in reply to the question "How much?" On April 22, while her parents were discussing the cost of a new table-cloth, R. volunteered the information that it would cost "tu dólɛ."

VIII. *Negative.* An interesting sentence was recorded Aug. 20, 1904: "Will you *won't* do it, mama?" *i. e.*, "you won't do it, will you, máma?" On October 29, 1904, she said: "Are they *aren't* there?" Two days afterward: "You always *don't* sometimes, mama." On May 27, 1904, she said "I guess I won't surely come to dinner."

IX. *Obiter Dicta.* Other sayings of hers worth recording here are as follows:

1. *I'm busy.* Said July 1, 1904, when asked something while eating her dinner.
2. *Flies won't hurt you, mama!* Said when her parents were speaking about the flies in the house (July 8, 1904).
3. *Mama would n't do that way.* Said in criticism of her father, July 8, 1904.
4. *Im titting out here to det tome air.* Said July 9, 1904, while out on the piazza on warm day.
5. *Dis is a lovely place, I think.* Said July 9, 1904, as she came out of a new drug store at East Boothbay.
6. *No! I'm a dreat big dirl now!* Said July 9, 1904, when asked if she wanted to be carried, after having walked for some time.
7. *Tome of 'em 'll have to walk.* Said, several times over (July 10, 1904), when in imaginative play she had brought together a large number of people. In reference to the stage which carried passengers to and fro from Boothbay Harbor and Bayville.
8. *Why don't you have blue eyes, tather?* Said, July 10, 1904, when color of eyes had been spoken of by her parents.
9. *You don't take tare of me.* Said, in a reproachful tone to her father, July 11, 1904.
10. *I like you in your white tsoes (shoes), tather.* Said, July 11, 1904. The same day she said, also, "That's a nice toat you have on, tather."
11. *Little tigers don't bite.* Said (*e. g.*, July 12, 1904), frequently by her, even now (October, 1904), with much expression.
12. *I'm such a little bit o' baby, I want a rattle.* Said July 13, 1904, as she was about to go to sleep in the hammock.

13. *Does the tun (sun) make the water blue, mama?* Said July 14, 1904, while walking through the woods in sight of the sea.

14. *I want to be breezed a little bit.* Said July 16, 1904, as a breeze was making itself felt.

15. *I want a little boy to play with.* Said July 16, 1904.

16. *"Keh!" That's what the parrot said.* Said July 18, 1904. To this she added soon afterward "that's what all the birds tay." This is a reminiscence of a parrot across the street from her home in Worcester.

17. *Bumble-bees tan't wite (write.)* Said July 18, 1904, after she had said laughingly, "I'm witing to the bumble-bee."

18. *Tather, tan you tay butterfly—butterflv—butterfly?* Said July 19, 1904, while in the woods on the road to Boothbay Harbor.

19. *No! Wait till it dets Worcester time.* Said July 20, 1904, in reply to the question, "Do you want to go back to Worcester, now?"

20. *Look at my charming face!* Said July 20, 1904, as she covered her face up with the skirt of her dress.

21. *Divin' my tweet little toes a clean.* Said July 20, 1904, while in her bath-tub.

22. *Isn't any hair on my toe-nails.* Said on the same occasion as No. 21.

23. *No! I'm bad for it.* Said July 28, 1904, when asked if she was not sorry for something she had done.

24. *What tall I do now?* Said (*e. g.*, July 30, 1904), in a sort of *ennuyé*-fashion, when tired of playing, etc. She often would add, "I'm tired o' doin' this."

25. *There comes Mr. wind.* Said Aug. 10, 1904, as a breeze began to blow. The "Mr." she picked up from her father.

26. *My, how good that corn is!* Said Aug. 12, 1904, while watching her mother eating some sweet corn.

27. *How good it pells (smells) here!* Said Aug. 12, 1904, while in the woods on the road to Boothbay Harbor.

28. *I twimmed out to the vasty deep.* Said, with the introductory remark, "Did n't I have a lovely time in the water?" on Aug. 18, 1904, after a sea-bath. The "vasty deep" she had heard her father use.

29. *Never mind your work, tather!* Said Aug. 18, 1904, when she wanted her father to go with her somewhere outside the house. She had heard him speak of his work quite often.

30. *Don't I look funny in Boynton's coat?* Said Aug. 18, when she had on the coat of a boy playmate.

31. *Tather, I want to be buried.* Said Aug. 4, 1904,—she added immediately, "and sarried." Possibly she caught up this word *buried* from some one in her environment and used it with no sense of its real meaning. Her mother thinks, however, that she meant *berried* (she was very fond of picking berries). In that case the analogy would lie with such expressions as "I want to be tathered," "I want you to mother me," and the like. On Aug. 23, she said several times in succession "I want you to bury (berry) me!"

32. *Oh heavens!* On Aug. 24, 1904, she is recorded as using this exclamation several times. Also, "Oh dear!" "Well! well!" etc., which she was already acquainted with for some time.

33. *Why can't we have a moon in our house?* Said Sept. 22, 1904, while looking out of the window of her home in Worcester.

34. *This is my favorite kind of grapes.* Said Oct. 18, 1904. She is beginning to use the word "*favorite.*"

35. *Tather, I wish I could work for you!* Said, very expressively, October 24, 1903, just before she went to bed.

Many of these sayings were accompanied by expressiveness in feature, gesture and accent, tone, etc., that cannot be described; sometimes, even, it is hard to believe that conscious wit was not behind them. Her way, *e. g.*, of saying "I'm busy" was quite inimitable. So, too, with Nos. 2, 6, 7, 11, 12, 17, 18, 20, 27, 29 in particular. As will be readily seen, some of these sayings are a measure of her ability to pick up the words and phrases of her elders, others have the quaint touch of her own child-personality.

X. *Order of Words.* In the sentences spoken by R. in the period from February to the middle of June, 1903 (31-35 months), considerable elasticity in the order of words appears. On Feb. 24, she said, "mūm, māma" (come into the other room, mama), but on March 6, "tɐ̄m, pápa, mūm" (come into the other room, papa). On Feb. 24, "lōl titi" (roll, kitty), but on March 23, "dtíti, lōl." On Feb. 24, "máma ĕ!" (get up, mama), but on March 24, "ĕ bēbi" (take baby up) and, on the same day "pápa bēbi ĕ!" (take baby up, papa) and "tĭ ĕ, bɐ́ni" (sit up, bunny). At the same time she used both "pu tēɐ̄ ŏn" and "pu ŏn tēɐ̄" (put the front on my chair); "títi in" (let kitty in), "pápa, títi in" (let kitty in, papa), "títi in nēɐ̄" (put kitty in there), "máma, lĕ títi in," "lĕ pápa títi in," etc. On Feb. 24, "ōō, pápa" (open it, papa), but on April 19, pápa, bɐ̄ di tō" (button your coat, papa), and on April 19-21, "pápa, wŏk bē tlī" (papa, rock baby to sleep). Some of her componnd words are of interest here: "Tásten-pēpĕ" (paper-fastener), "hot bottle-water" (hot-water bottle), "blow-bubble-dis' " (dish of soap-suds for blowing bubbles). On April 8, 1903, when attempting to repeat "Little Jack Horner" she ended the last line "bói dūd 'mai," making a deliberate change from the "good boy am I" of the original.

XI. *Parareduplication.* This term may, perhaps, be coined here to designate the phenomenon observed in the tendency of young children to reproduce as equi-branched dissyllables many words caught up from their elders, *e. g.*, "mūmū" = "music." Following is a list of some of R.'s words of this type.

Bēbē, "paper;" bēbê, "bacon;" bŏbŏ, "bottom;" bŭbŭ, "bunny;" dādā, "dolly;" dēdē, "table;" dindin, "dinner;" Mēmē, "Mary;" Mɐ́mɐ̄, "monkey;" mūmū, "music;" ō ō, "open;" títi "kitty;" wáwa, "cracker;" wâwa, "forehead;" wīwī, "ribbon;" wīwī, "window;" wīwī, "scissors."

These words were all used by her during the 18th to the 20th months of her life (Jan.-Mar., 1903), the period when this tendency was at its height.

Another interesting series consists of reduplicative dissyllables representing monosyllables or pseudo-dissyllables of adult

speech. Examples are: Baba, "bear;" dada, "down;" dɛdɛ, "reindeer;" dīdi, "drink;" dŏddŏd, "dog;" ĕ ĕ, "up;" ɛɛ = swan; ee ee = "ear."

These were recorded in November, 1902, as the results of attempts made by her to reproduce words pronounced to her by her parents.

Some polysyllables attacked by her produced the following (Nov. 1902):

Bɛ lɛ bɛ lɛ = "buffalo;" bɛ lɛ bɛ lɛ = "pretty;" blɛ blɛ ="billy goat;" yɛ yɛ, "elephant."

XII. *Plurals*, etc. While Ruth, at three years (August, 1904), followed generally the plural-formations of the English language as spoken by her parents, she occasionally employed some peculiar plurals: Mans (men), mothies (moths), bathes (baths), teethes (teeth), childrens (children). She uses at the same time the correct form of "ladies," "girls," "boys," etc. On December 16, 1903, she said "Indins mans." Others of her earlier plurals are: Tome eggun (Oct. 8, 1903), "some eggs" (she used also "eggs" at this time); tossingĕ (Mar. 9, 1904 = "sausages"). In September, 1904, she was heard to use "clothies" (clothes) and "waistes" (waists). On July 10, 1904, she said that she had eaten "two *mans* and five ladies." On Aug. 25 she said that there were "two little *Ruthes*." On Aug. 27, 1904, she said, "Tan I put *a few borax* out o' my tub into this bottle?" Also, "*How many borax* are there in here?" The word *borax* is, seemingly, a plural to her.

XIII. *Poetry, Rhythmic Utterances*, etc. The following examples illustrate further her power of composition in primitive prose and verse:

1. I love you!
   I love you!
   I love you!

In July, 1904, she was fond of throwing her arms around her father's neck and uttering this in somewhat rhythmic fashion.

2. On July 9, 1904, when her father said "Twinkle, twinkle, little star," she added, of her own invention: "Mīnī nīnī hĕpĕdar." Here she not only kept the rhythm, but actually made a rhyme.

3. On July 18 she uttered, of her own notion, the following:

   There was a man in Tatátchet
   Who had a papátchet.

4. Two days after this she delivered, while in her bath tub a long soliloquy, of which the following portion was recorded by her mother:

Divin' my tweet little toes a tlean,
Divin' my tweet little toes a tlean.

Mama, I want my broom.
Oilan, oilan, oilan.
Mama and baby tall have a ride.
Mama dear, mama dear, and tather dear.
Do that water.
Tather and mama ridin' in a boat.
O you will be wet.
Papa and papa.
Papa was a papa.
Kee-ee-ee-wh-ee, I'm was'in' me.
Do her hair up, to (so) it won't det wet.
Isn't any hair on my toe-nails.
O Isabel, Isabel, where are you?
What are you doin' up there?
Do it up other way, it won't det wet.
Mama is doin' to pour tome water on tather's little babbykins.
There she does (goes.)
Ladle and ladle and ladle.
That's dry,

(Sings) O the brightest day!
O the brightest day!

Part of this is evidently "poetry," some of the rest rhythmic prose.

5. On August 21, 1904, she got off the following:

All the rakin' awkin down,
Rakin' up, rakin' down.
Put the cupta down!
Enna papas cupas down
Denna watshis cupis down.
Couples comin' down.
The napples cubble down.
Hoosan dee and hoosan dee,
Hoosan now, hoosan dowt;
Hoosan thu, tomethin' real,
Tome thin call, no, tome thin' nice.

This bit is partly English and partly in her "Chinese."

6. On August 22, while looking at her "Mother Goose-Book," spoke the following:

Those babies are gone to bed.
He doesn't look very well, does he?
That's a good one, that's a naughty.
There was a little dirl, with a curl,
When she was dood she was horrid.
I always go to bed at five o'clock
And never make any noise.

This she "sang" as she kept looking at the pictures:

7. On August 25 the following was recorded:

Hoosin dee and hoosin dee,
Peezin dee and neezin and allin dee.
Nazin dee and hōlin dŏg.
Nŏthin' dŏg.
Tŏthan and nŏthan, nŏthan, nŏthan, nŏthan, nŏthan, nŏthan.
B-o-y wet.
B-o-y do.

This, again, is part "Chinese." The "b-o-y" she had been taught just before.

8. Soon afterwards, the same day:

Old cat winks,
Old wacks winks.
There's a bag-ful of wags, wags.
It's awful full.
Change my book.
Milk and yuts and chucks and ucks.
Ol' wacks sees.
No nacksum ba goose.
Mother goose.
O this is mother goose.
I'm going to the Harbor.
I hav' n't changed these books yet.
Jest a little bit.
Do it up this way,—that other way!
Come and look at our apples again; [they were cooking on the stove]!
Let the rooster (toy) go to chleep!
Let me go up the banister!
How red my hands are!

The "winks" of this piece came from the nursery-rhyme "Hinx, minx, the old witch winks," which her mother had read to her some time previously.

9. At the table, on Sept. 22, 1904, she "sang" this:

Mama's got some tea!
Mama's got some tea!

10. On October 13, she "sang" the following, *ad lib.*:

The night is dark
And the day is light,
The night is dark
And the day is light.

XIV. *Prefix.* But a single example of her invention and use of a peculiar prefix was noted. On December 19, 1903, she was found to be using with satisfied predilection, an ā, placing it before almost all the words she used:

Abé', (bear), ābɛ́ (bird), ābābā (baby), ābŏ (boat), āmāma (mother). This did not seem to be, as might be suspected, the English indefinite article "a" (ĕ *or* ē), but a real enclitic particle.

XV. *Preterite-forms*, etc. Even during the last half of her third year and well into her fourth, while using with great accuracy many preterites and past participles in their proper form, she employed also a number of the—*ed* type affected by children. Thus she said: " 's done," "done" (*i. e.* gone) and "went," but also occasionally "goed;" "dave" and "did div'," and "div'd" (*i. e.* gave); "taw," "did tee" and "teed" (*i. e.* saw). These forms were, of course, more common earlier in

her life. Following is a list of some of these: Bited (Aug. 1904), blewed (April 30, 1904), blowed (still in use, Oct., 1904), breezed (July 16, 1904), buyed (still in use), detted (March 31, 1904), div'd (spring of 1904), doed (*i. e.* "did," April 30, 1904), dōed (*i. e.* "went," spring of 1904) drinkt (Aug. 6, 1904), eated (summer of 1904), feeled (*i. e.* "felt," May 20, 1904), fulled (*i. e.* "filled," July 29, 1904), helded (Aug. 12, 1904), hided (Aug. 6, 1904), holded (still in use), rided (*i. e.* "rode," July 20, 1904), shakt (summer of 1904), teed (spring and summer of 1904), tomed (spring of 1904), tookt (Jan. 5, 1904), twimmed (*i. e.* "swam," summer of 1904), twinged (*i. e.* "swung," Aug. 1, 1904), waken (*i. e.* "waked," summer of 1904), winded (July 9, 1904).

In October, 1904, she still used *holded* (and, rarely, *helded*) in such sentences as "I want to be *holded*." On October 24 she employed the very curious form *fullded* = "filled." During this month she also used frequently *done* = "did." On April 22, 1904, she observed "We are n't half *waken* up!" On Dec. 26, 1903, she used the phrase "atraid o' *been* eatin' zat." On July 14, 1904, she said, "I don't need any *tooken* hands."

Her most remarkable achievement in this line, however, is her statement (Dec. 16, 1903), "Zat's where we *wuz are!*" made, when she found again the place she had lost in the book which she was "reading."

XVI. *Reduplication.* The repetitive *ha ha* was first recorded Sept. 24, 1901, and *ĕ ĕ* about the same time was much in use, both as vocal exercises. By January 4, 1902, she was employing *ah ah!* In the beginning March (especially 3-6) she used very frequently *bōbōbōbō*, *māmā māmā mā*, *pa pa pa* (whispered), *pápa* (quite plainly), *apápa*, *bábabab*, etc. On March 17 she was saying often *gaigaigai*, *yāyāyā*, *mā-mā-mā*, *wā-wā*. On April 24 she was noticed repeating to herself, with evident satisfaction the phrase *dětī dédī*. About this time also she "talked" a good deal, using sounds like these: tā tā tā ĕ ɛ; ā brū lɛb lɛb; dādā blɛ́blū; nāna nɛ́na; mammámma, etc. On June 8 she was exploiting ĕ ĕ ĕ,—a sort of infinitely diversified grunt, which seems also multisignificant. Early in July she used *da-da-da-da*, without any special signification, and had begun to employ *ném'nem* or *néminem*, with the sense of "food, I am hungry," etc., uttering it when she was hungry, when she saw her bottle, etc. In August she exploited the word *hello* making out of it *a-lō alō!* On Aug. 24, she was saying *bābā* for "bye-bye," and the reduplicated *máma* and *pápa* (the use of these words is treated elsewhere) were, by this time, in good use. At this time also she reproduced *pretty* as pitɛ́ pitɛ́." In December she used not infrequently dādā for "father." She also had a spell of amáma apápa, abába. During this period

many parareduplicatives had their origin or period of flourishing. The reduplicative "bōbō," for "chamber-chair," made its appearance in the beginning of January, 1903, while such others as "wáwa" for "cracker," "tsūtsū," "car, train," etc., became common (many of these are listed under the rubric: Parareduplication). In her "talk" to her dolls on April 16, occurred the following more less unmeaning reduplications: Dō dō dō dɛ; dɛm dɛm dɛm; idldidlidldidl, hai hai hai; hídi hídi hē; fō fuī fī fō; wī wī wī; fuīdi fuīdi, etc.

During the summer and fall of 1904 she often used the type of reduplications exemplified by *tather-wather*, *rainy-wainy*, *baby-waby*, and the like, on the one hand, and on the other, by "máma-mother," "pápa tather," etc. On Aug. 24 she had a spell of "pápa bápa wápa, bēbī wēbī nēbī," etc. About the same time she was fond of addressing her mother by the brief *nána* and the rather long "mīmā mīmā mīmā máma."

XVII. *Reproduction of Nursery-rhymes.* Under this rubric is recorded what was noted of her attempts to repeat familiar nursery-rhymes as they were said to her by her parents.

1. "*Little Jack Horner.*" On Feb. 24, 1903, was noted her first attempt to reproduce this. Her parents repeated the words of each line until she supplied a word herself. This time she reproduced only the end-words thus: (the text gives the part recited by the parents, and the baby's words as said by her, the last in phonetic transcription):

Little Jack Oɛn
Sat in a tō'ɛn
Eating his Christmas b'ai.
He put in his dɛm
An pulled out a lɛm,
And said "what a good boy m'ai!"

She was, however, so eager to speak that hardly had her parents begun the words "Little Jack," before she would exclaim "b'ai" (pie). The "m'ai" (= am I) she always said very emphatically. On April 8, the recital was:

Little Jack Hâɛnē
Dā dâɛni
Eating a tī pai.
He put in his dɛm
And pulled out a plɛm,
And said boi dūd m'ai!

The order of the words in the last line is interesting,—"boi dūd," *i. e.*, "good boy." When reciting it again on April 20, it appeared with less of herself in it.

Little Jack HôɛnĕSat in a tô'nĕ
Eating a Christmas pai.
He put in his dɛm
And pulled out a plɛm,
And said what a good boi m'ai!

On June 9 she was heard saying:

Hâne, lit,' Djak HânE
Tit in tânE,
I tis'm pai!

2. "*Mary had a Little Lamb.*" When first recorded on Feb. 24, 1903, this rhyme appears thus:

Mary had a little lamb,
It's fleece was white as nō,
And everywhere that Mary went
The lamb was sure to dō.
It followed her to ū'l one day,
Which was against the ū'l,
It made the children laugh and lē
To see a lamb at ū'l.

She was generally so anxious to go on that she said "nō (snow)" before her parents had more than started the rhyme. She was very fond of the "lē (play)," particularly since she was accustomed to say so often to the cat "lē títi (play, kitty)." Indeed, instead of the "lē" of the nursery-rhyme she would very often insert "lē títi." On April 8, "Mary had a Little Lamb" appeared thus:

Mary had a little lamb,
Hwlī hwai 'tō,
And everywhere that MēE wĕnt,
The lamb was tū dō.
It followed her to tū' wEn dē,
Which was dĕn ū lūEl,
It made the dūldĕ lā plē
To see a lām tū'l.

On April 20, the version ran:

Mē . . . . lām,
Phī hwai tō,
An everywhere Mē wĕ
The lamb was sure to dō.
It followed her to tūE wEn dē,
Which was dĕn ū wül.
It made the tūlĕ lā plē
To see lām tūlĕ.

Here, again, the second version is more complete than the third.

3. "*Rock-a-bye-baby.*" As first recorded, Feb. 24, 1903, this ran as follows:

Rock-a-bye bēbī
In the tree tŏ,
When the wind bô
The cradle will wâ,
When the bough bê
The cradle will wē,
And . . . . daw
Cradle and â.

The next version (March 6) was:

Rock-a-bye bēbī
On the tree dō,
When the wind bō
The cradle will wâ,
When the bough bē
The cradle will â,
And down will come bēbē
Cradle and dau.

In the last line of the second version she used "dau (down)," making it run "Cradle and *down*" instead of "cradle and all." This transference of the word was long persisted in.

4. "*There was a little girl.*" The first version of this recorded (Feb. 24, 1903) is thus:

There was a little go'il
And she had a little ĸ'ɛ'l
Right in the middle of her wāwa,
And when she was bā
She was very, very good,
And when she was bad, she was âwī.

It was noted that from the first she persisted in making the last word of the fourth line bā (*i. e.*, "bad")—"and when she was *bad*," a distinct departure from the current conception. On March 11, the version was:

There was a little dō'ī
Who had a little dɛ'l
Right on the middle of her wāwa,
When she was dūd
She was very, very dūd,
And when she was bad, she was āwɛ.

5. "*Ride-a-cock-horse.*" On March 6, 1903, the first version of this rhyme is recorded thus:

Ride a cock â
To Banbury Cross,
To see a fine lêdli
Ride on a white â.
Rings on her dô
And bells on her dô,
She shall make mūī
Wherever she dô.

From the first she would not say "wīwī" (fingers) at the end of the fifth line, but persisted in using "dô (toes)."

On April 20 the following version is recorded:

Ráidi, cock hâ
To Bámbī trâ,
To see a tai lēdī
Ride on hwai hâ,
Rings on her fingers,
And bē dō,
She shall make mūmū
Wherever she dō.

6. "*Little Bo-Peep.*" As first recorded (Feb. 24, 1903), this ran as follows:

Little Bo pī
Has lost her ī,
And don't know where to vai.
Let 'em ō
And they 'll come ō
Bringing their tails vai.

The next attempt (Mar. 6) resulted:

Little Bo īp
Has lost her īp,
And don't know where to ai.
Let 'em ōn
And they 'll come ōm,
Bringing their tails vain.

The short words of this nursery-rhyme did not afford her so many *points d'appui*, as did some of the others with less monosyllables.

7. "*Little Tommy Tucker.*" The first recorded version (Mar. 10, 1903) was this:

Little Tommy DédE
Sings for his téptE,
What shall he sing for?
White blē blébdE.

On April 8 she was heard saying to herself

Li'l TEm TE,
Hwai blē blébIE.

8. "*Hey diddle diddle.*" The first attempt (March 23, 1903) resulted thus:

Hē dídlidl
The cat and the fiddle,
Kau jumped over the mūī.
The little dog lā
To see such fine pō
And the dīsh ran away with the pūī.

When she said "lā (laughed)" in the fourth line she would put out her tongue in very characteristic fashion. At this time she was beginning to use gestures and "acting" in recitation.

9. "*The Man in the Moon.*" On March 23, 1903, is recorded the first version of this rhyme:

Mán-ī-mūi
Came down at ūī,
And asked the way to Wâwa;
He went by the au,
And burnt his mau,
Eatin cold plum päwi.

10. "*Jack and Jill.*" First version, recorded March 23, 1903:

Jack and íī
Went up the ī,
To get a pail of wâ.
Jack fell dau'
And broke his au
And Jill came tumbling dau.

Here in the last line she used "dau (down)," as she did in "Rock-a-bye-Baby"[1]—the "after" not appealing to her any more than the "and all" did in the other rhyme.

11. "*There was a Man in our Town.*" The earliest version of this rhyme, of which she became on first hearing very fond, was, as recorded on March 23, 1903:

There was a man in áuɛ tau,
And he was wondrous ai,
He jumped into a brámlĕ bŭ
And scratched out both his ai.
And when he found his eyes were gŏn,
With all his might and mēn,
He jumped into a brámlĕ bū
And scratched them in adĕn.

In the seventh line she said "brámlĕ bū" instead of "another bush." The word "brámlĕ bū" seems to have quite caught her fancy and she was fond of repeating it. This song she would call for as "MāE au tau." The next version is recorded on April 8, as follows:

There was a mánɛ áuɛ dáun
And he was wónī wai,
He jumped into a brámlĕ bū
And scratched out bō ai.
And when he found his ai gŏn,
With all his mai mē 'n,
He jumped into a brámlĕ bū,
And scratched them in—dĕn.

When she had done this time, she pointed to the book-case near by and said "brámlĕ bū wait nēɛ," *i. e.*, "the bramble-bush is right here" and then added "brámlĕ bū bū tē,"—"the bramble-bush is in the book-case."

12. "*Georgie Porgie.*" The first version, recorded April 8, 1903, was:

Georgi Pōdī,
Pudding pai,
Kissed the dōil
And mē t 'ai.
When the dōil au plē,
Georgie pōdi
Ran āwē.

13. "*Yankee Doodle.*" This is found recorded on April 8, 1903, thus:

Yankee DūdɐI came to daun,
Riding on a bōnī;
He put a lĕdī hāɐt
And called it māɐ rōnī.

14. "*Old Mother Hubbard.*" Recorded April 20, 1903, as follows:

Old Mother Mɐm
Went to the débdɐ,
To get her pūɐ dŏ bōn;
But when she got dēɐ
The dɐbdɐ bēɐ,
And so the poor dŏ ŏ ɐn.

These records are of interest and value in connection with the form and variations of nursery-rhymes, counting-out rhymes, and set formulæ generally in folk-speech, etc. The influence of these nursery-songs upon her language was considerable as may be seen from the following notes:

1. *Twinkle-tars.* Although she knew and used the word *tar* for "star" (*e. g.*, May 2, 1903), as a result of hearing the ditty "Twinkle, twinkle, little star," she came to use "twinkle tar" as her common term for "star," and at present (October, 1904) she still employs it in the form "twinkle star."

2. *Lēdlī.* By this term (as noted Mar. 6, 1903) she knew the song "Ride-a-cock-horse," and would ask for its repetition by saying "mōɐ lēdlī!" On Dec. 17 she spoke of the "Bánbē hâs lēdī." The *lēdlī* is, of course, her catching up of the *lady* of this nursery-rhyme. Early in March, 1903, she would also call out â (horse) when she wanted this song. Lēdlī became afterwards lēdī.

3. *Mēī.* About the same time she called the song "Mary had a little lamb," *mēī*, and, when she wanted it repeated she would say "mōɐ mēī." From this song she also came to call her toy-lamb "Mēwĭ lam."

4. *Mɐn'*. By this name she would call (*e. g.*, March 6, 1903) for the repetition of some verses, made up for her by one of the summer-visitors in Maine. The refrain was: "Sing baby, sing monkey, sing monkey, sing babe." From the *monkey* of this song came her *mɐn*.

6. *Mán-ī-mūī.* On March 23, 1903, it is recorded that she was in the habit of calling for "The Man in the Moon came down at noon" as "Mán-ī-mūī." Familiarity with the song doubtless helped her to adopt "mán-ī-mūī," (and also "mūī") as an important word of her vocabulary with a wide range of analogous signification.

XVIII. *Spontaneous Language.* During the summer of 1904 her "Chinese" was seldom in evidence, but a few cases

of its spontaneous use or of its production upon request being recorded. On July 7, 1904, it was noted that she had not used "Chinese" for a long time. The chief facts concerning her more recent spontaneous activities in language-making, etc., are:

1. *Naming.* On July 18, 1904, she named some paper "boys" and "girls" cut out by her mother thus:

Girls: 1. Tākapanānan. 2. Hthākandandānan. 3. Dāndāndān. 4. Bámbambam. 5. Bambambam. 6. Mánanānan. 7. Mámakain.
Boys: 1. Pābalīdlī. 2. Fitchindémbining, 3. DaundEndaun. 4. TūldEndaun. 5. Háulindaun. 6. Abáuntindaun. 7. Páunsindaun. 8. Pásbinggambìndan.

These are in form similar to "names" recorded earlier.

2. "*Chinese.*" On July 20, she almost "sang" the following:

(a) Pafsin bamsin dumsin doo. Hosum dumsin beemsin dime. Howsin doo and hoosin doo. Hoosin hafin doo. Hunum bussum zine. Dooin jun fossum tchumjum jum. Gonjin gonjin gon (*rep.*) am bam an gi an pourin a rain.

At the end she glides into English, "pourin' a rain."

On Aug. 27 she gave utterance to this specimen:

(b) Hoosin doo an hoosin dee an nu an tu tin goo. Doolin doo an pā'un goo an doonin doo an *golf-ball.* Toolin doo and hooligoo an mooni goo. Too-din doo an goo-din an poodin an choom an an nookan an koosan. Toosin dee an noosin dee an chukan an goonan noo. Torda porda forda. Hoonan doo an budjum a dum dubba a tchutcha. Dooba horsa arosa noona soosa. Toosin gum an noolin noo. *Baseball* gamin doo. Doo man numa choo. *Long ago* and chudaho. *Long ago* an koosa kona noosa. Bodgin doo an doo a pazha. Koosa poosa soomin noosa. Hoosin dee an borda porda gum.

Her insertion of English words here deserves notice as premonitory of the breaking down of her "Chinese" through the influence of such terms.

The same day, when "reading" Scribner's Magazine, she got off the following:

(c) Hoosin doo an noosin doo an poosin doo. Poosin doo an goodan. Doosin doo an hoogin goo. Goodin an boosin doo an poosin doo. Pootin go an boosin doo an putchum maba porchin too. Pootcha boutch. Po atlapin jum an doo. Putchin kam an boosin doo. Putcha babbin butchin dooin habba chutcha. Tchuda a bud an chuchin doo. Putchin dooin a poota pootin doo. Pooda pooda oona fooda oona hoo. Arna tchooda pooda poo. La busha an a saman butcha doo.

This is more after the manner of her earlier "Chinese."

3. "*Skov'n.*" On Sept. 9, 1904, it was noticed that R. seemed to be using a new "language," different from her "Chinese." The following specimen was obtained:

(a) Shov an ov gov an ov. Jov an nov kow ka. Skov an jov an nov. Skov an ov an jov' nov'n. Skov'n nov an jov'n joltin an bov a log. Kov an jov an nov. Jov en nov an nik an jōns. Skun nov an gog an

gains. Kog an gog an kosh an dawlin. Skov an jov an nov an jov. Gov an yov an nokut bov an jawbun. Gov an nol an chaufun nawl an bob an nog. Gok an gok an gok an gatin. O kus gov'n nov. Skov'n nov an jŏn. Skov'n nov an non. Skov'n vu an nov'n jods.

When asked, if it was "Chinese" that she was talking, R. replied "No! it's skov'n." It appears to be notably an *o*-language, therein differing distinctly from her "Chinese," which has not such uni-vocalism. When first found using "skov'n" she was almost "singing" it. She did not show great fluency in its employment, and the only other example obtained was this, recorded on Sept. 27:

(b) Krookin frookin an krookin an pookin. Foili nofin neef.

4. The same day, however, she spoke the following, which seems to be a new sort of "Chinese," with affinities with "skov'n."

Poivin dayvin foiving foigin. Cheebin flewblin fullia fuggia diddl'a fooeia báyaychúdda folli. Blayfin doofan doov. Bleefli foo fooayli foori. Heefoun neevun heeford jeevun heefoin veevem *hello* veevum. *Seven* divun djivun heefoid stoospun feekun veekun weethin heefuz leevun. Sleez yayf glayf voif *life*. Vorleefun an evun leefun lovun. Evun eeli an fi vun in. Ai keef an keef an vof an *fight* vooning king peel ta milka kowst.

The last few words of this look like corrupt English, and a few other English words are scattered through it.

XIX. *Word-forms slightly or not very much differing from those in Adult Use.* As examples of words used by her which differ not very greatly from the forms of them in common use by adults, the following may be cited:

1. *Börding-house.* During the summer of 1904, she persisted in calling the boarding-house very frequently "börding-house," giving the first syllable about the same sound as the word *bird*, which may, indeed, have suggested it to her.

2. *Dimp.* During the same period she very often used *dimp* for "dĭp,"—*e. g.*, "Tan I *dimp* it up?" (July 5, 1904.)

3. *By side.* In the summer of 1904, she employed "*by* side" for beside. Thus she said (Aug. 29), "a tail-boat *by side* it," and "Tan I tit *by side* tather?"

4. *On-i-ons.* On July 7, 1904, it was noted that she was fond of speaking of "onions" as ĖnĭĖns.

5. *Apple-tarts.* For some reason or other she was calling in July, 1904, preserved apricots "apple-tarts," *i. e.*, "apple-carts," her corruption of *apricots*.

6. *Rope-boat.* Early in the summer of 1904 she used to say "*rope*-boat" for "*row*-boat," probably because the boats were tied to the float with ropes. By July 20, however, she had had come to correctly use "row-boat." *Apple-carts* and *rope-boat* suggest folk-etymology.

7. *Line.* On July 20, 1904, it was noted that in the rhyme "Mother, may I go out to swim?" she would say "hang your clothes on a hickory *line.*" The *limb* of this verse was also rendered by her often as *lamb.* This accords with the variations in counting-out-rhymes, etc.

8. *Emergreen.* On October 26-27, 1904, she was found to be using repeatedly "emergreen" for "evergreen." She spoke of "*emergreen* trees," "*emergreen* houses," etc.

9. *Triksit.* Even at present she occasionally employs for "triscuit" (the breakfast food) *triksit,* which was her earliest name for it.

XX. *Word-groups.* The early period at which children partly or wholly grasp certain groups of words, combinatory expressions, etc., is well illustrated in the development of R.'s language. At the dates indicated she was using the following: Au wâ (out to walk, Feb. 1903), tsūtū tāE (choo-choo cars, Mar. 6), au lai (put out light), dat wē hīE (this way April 5), âl gŏn (April 5), aut wē (get out of the way, April 5), tēk . . . wē (April 5), lĕ . . . in (April 6), dŏn tlī (gone to sleep, April 10), wai hīE (right here, April 13-16), plī, pápa (please, papa, April 13-16), au wínnE (out of the window, April 16), gō tlī (go to sleep, April 16), plē bâ (play ball, April 19-21), bā dō (back door, April 19-21), man-ī-mūi (man in the moon, April 10, 1903), ōn nēm (own name, April 8, 1903), ōn bed (own bed, April 5, 1903), mēk lai (make a light, April, 1903). Other examples will be found under the rubric: Favorite Phrases.

XXI. *Words "Original" or "Invented."* In this category may be classed the following, including a number of terms for which no completely satisfactory explanation as mutilated or made-over words of her adult environment is forthcoming:

1. *UblE!* A favorite expression (at the age of eleven months) when interested in anything.

2. *NEm'nEm.* "I am hungry," "I want food," "I want the bottle," etc. When somewhat less than a year old she would commonly use this word when hungry, or when she caught sight of her feeding-bottle. *NEm'nEm* or *nEminEm* is a word with similar meanings reported by many observers of young children.

3. *Bŏbō.* On January 6, 1903, she began to call her "chamber-chair" by this name and has continued to apply it to similar toilet utensils.

4. *M'nĕ,* "I'm thirsty," "I want a drink," "I want water." This word was used by her in January, 1903. It is just possible that *m'nĕ* may be her imitation of *drink.*

5. *Wawa.* By Jan. 6, 1903, she was using very frequently *wawa,* "cracker," a word she began to employ in the fall of

1902. Her mother thinks that *wawa* is really her attempt at reproducing *cracker*.

6. *Aigel.* On Aug. 25, 1904, when playing with some joss-sticks, she said that she wanted to cut them up "in little middles and in little *áigels*." A once-word.

7. *Tállibō.* On April 23, 1904, she said of a picture of some parrot-like bird, "That is n't a parrot, its looks like a *tállibō*." A once-word.

8. *Bidzii.* On March 15, 1904, she began to tell a story: "There was a little *bidzii*,—O that is a bad 'tory." This is a once-word, for she never used it again.

9. *Dĭdĭ.* A once-word, used on May 15, 1904: "There was a little *didi*. I don't know 'bout the west of it."

10. *Rickeness.* Another once-word, used the same day: "There was a little *rickeness*, a little duck with its mouth open."

11. *Piger.* A once-word, used March 4, 1904: "Once upon a time there was a leopard! And a *piger*." In answer to a question, she said: "A *piger* is a dog." The word is possibly modified from *tiger*.

12. *Teets-pamas.* On April 24, 1904, she said that the *teets-pamas* were eating her dolls. On being asked about them she described them as "just like dogs," and showed how they went about on their legs and how they put things into their mouth. She said also "they live in their own barn."

13. *Deety.* On July 8, 1904, when asked if her neck, which she had strained, was still "broke," she replied "No!" and then, in answer to the further inquiry, "Who broke it?" said "*Deety*," adding "*Deety* is a woman." She also vouchsafed the information that "*Deety* would mend tather's neck, when it was broke."

14. *Dunkled.* On Oct. 27, seeing her mother put her shoes in the oven to warm, she said "Don't let 'em get *dunkled* up like the others" (referring to some that had been spoiled by the heat). This word might of course, be a compromise between "crumpled" and "wrinkled," or based upon one or other of these. It is placed here provisionally.

15. *Mĭmā.* This word for "mother" she used often during the summer of 1904 (*e. g.* Aug. 11, when she employed it repeatedly). It may be just a variant of "máma."

16. *Báb-mā.* This word for "father" she used around about November 22, 1903. It is evidently a composite of "bába" and "máma," or of their monosyllabic equivalents.

17. *Nána.* A term for "mother" affected by her during the summer of 1904.

18. *Duggle.* On June 5, 1904, she said of the clouds, "Dey dust *duggle* in the ty."

19. *Twiggle.* The same day she said of the sun, "It *twiggles* in the ty." Then, as an afterthought, she added,—"twinkles I mean."

The words of absolute invention are rather few.

XXII. *Words Pseudo-primitive in Form.* In this category may be listed a number of words, which, standing by themselves, with no explanation of their history, might be taken for "original" inventions of the child, so primitive are they in appearance and so suggestive of the vocabularies of savage and barbarous peoples. A few words of this type may be cited from R.'s speech of the early part of 1903:

Bĕmbē ("pen," but first = "pencil"), būmba ("perfumery"), mūmū ("music"), vŭ ("horse"), vū ("shoe"), wawa ("crackers"), wīwī (scissors").

Here might belong, also, her "pitɛ́ pitɛ́!," *i. e.* "pretty, pretty!" with its shifted accent, and perhaps also "dɛ́bdɛ" ("cover") and a few other such words.

XXIII *Words with Special Meanings, Special Words*, etc. One very valuable section of her vocabulary consists of those words used by her with special meanings of her own and of words and expression constructed by her upon simple linguistic principles. Of these the following examples may be cited:

1. *Tasten-paper.* In the spring of 1904 she termed brass paper-fasteners "tasɛn-pēpĕ" (*e. g.*, June 20).

2. *Hot-bottle-water.* About the same time her word for "hot-water-bottle" was "hŏt-bōtɛl-wātĕ."

3. *Fish.* On Aug. 27, 1904, she asked, "Is tather going to the well to well up some water?" but defined *well* as "to *fish* up water."

4. *Dinner-ladies.* On July 24, 1904, she called the waitresses at the boarding-house "dinner-ladies."

5. *Horsing.* On May 20, 1904, she said, "I'm doin' out *horsing* now."

6. *Bunch.* The same day she spoke of "a big *bunch* of tunder (*i. e.*, thunder)."

7. *Half-much.* On July 14, 1904, while on the road from Bayville to Boothbay Harbor, she asked "Have we been walking *half-much in* the Harbor (*i. e.*, *half-way to* the Harbor)?"

8. *Longness.* On June 28, 1904, comparing the length of her own legs with those of her father she said that hers were short because "they tut the *longness* off."

9. *Warmness.* On April 9, 1904, she said "Put some *warmness* on it off your 'tove, mama."

10. *Hard.* On July 8, 1904, looking at a burn on her father's finger she said "It's burned *hard.*"

11. *Shut-eyes.* On July 9, 1904, she said "I want tome *tshut-eyes* (*i. e.*, dolly that shuts its eyes when laid down) doll who tan tleep!"

12. *Bumble.* The same day, when asked if she liked bumble-bees she replied: "I like 'em when they *bumble* around." On Aug. 10, while her father was trying to catch a bee in the house, she said "it *bumbles* away, doesn't it?"

13. *Wind.* The same day, when pretending to fan her father, she said "Tather, I'm *winding* you." On July 15, 15, 1904, she observed of the wind, "it *winds* me!"

14. *Get-up horn.* During the summer of 1904, at Bayville, Maine, she called the first horn for breakfast "the *get-up-horn.*"

15. *Breeze.* On July 16, 1904, while in the woods on the road to East Boothbay she said, "Mama, this is a nice breeze," then added, "I want to be *breezed* a little bit."

16. *Left.* On July 17, she called the second breakfast-horn, "the *left* horn."

17. *Front.* On July 16, 1904, when her father, speaking of her actions while taking a sea-bath, said that he thought she was on her back, she observed, "No! I was on my *tront!*"

18. *Trolley.* On July 20, 1904, she said of a picture of an electric car, "is it *trolleying* itself?"

19. *Way.* On Aug. 18, she amused herself by turning a number of cents "the Indian *way*," *i. e.*, face up, she having easily come to call the liberty-head "Indin," *i. e.*, "Indian." She also used the expression "letter *way*," when she turned her building-blocks letter-side up. Another expression, meaning the same, was "on the letters." She also said, to like-effect, "pictures up," and "tages (cages of animals) up."

20. *Journal Book.* On August 19, 1904, she is recorded as calling the "Ladies' Home Journal," which she used to "read" long before then, "home ladies' journal book." Some time before this she styled it the "journal book." At present (Oct. 1804), her term for it is the "Home Ladies' Journal."

21. *Fold.* On Aug. 20, 1904, she said of a piece of bread and jam "I want it *folded up*," meaning that she wanted the slice doubled over like a sandwich.

22. *Unfold.* In October, 1904, she would say, "unfold it, tather," when she came to uncut leaves in a magazine, etc.

23. *Corner.* In August, 1904, when turning over the pages of a book or magazine, she used to say, "Wait till I get to the *torner* (*i. e.*, end)."

24. *Moon.* On Aug. 22, 1904, she called half a pilot-biscuit "a moon biscuit," and a few days later began to ask for pilot biscuits as "moon trackers" and, occasionally, "moon wawa."

25. *Board.* On Aug. 25, she said of an orange she was about to eat, "Wait till I'm down to the *boarding*-house and I'll *board* it all up." When asked how, she replied, "I'll

board it up with a spoon." Then she added, "Do you little fellows *board?*"

26. *Middles.* The same day she said, referring to some joss-sticks in her hand, "I want to cut 'em up into little *middles.*"

27. *Acorn-tree.* On Aug. 28, 1904, she spoke of the oak, which she called "oak-tree" as "acorn-tree." She had an "oak-tree house" in an old hollow oak in the woods.

28. *Wraggled.* On June 7, 1904, she said: "Dis all *wraggled* up wiz a 'pool o' tread."

29. *Twinkle-Star.* (See under the section relating to Nursery-rhymes.) Still her common word for "star."

30. *Orni-delly.* Her first name for orange, (except a once-word *wanwa* (was "ŏrnī-dēllī, *i. e.*, "orange-jelly," because she heard the word "jelly" often and saw it on the table; also, her oranges were cut up for her and she liked the juice very much. On June 18, 1904, it was recorded that she had begun to call the "juice of the orange "orni-delly."

31. *Buttĕr-tree.* On June 2, 1093, it is recorded that, for some time past, she had been calling the "buttercup" bɛtɛ-tī. The *tī* (*i. e.*, "tree") being used by her in the sense of "grass" and for flowers of the field.

32. *Cold-hot.* On June 8, 1903, she called "ice" *cold-hot*, and about this time would always ask for it by that name.

34. *Worky.* On May 28, 1904, she said: "I tan't do that, 'tause I'm too *worky.*"

35. *Summer-day.* In the spring of 1904 (*e. g.*, May 18) she used often the phrases "when *tummer-day* tome, *i. e.*, "when it is summer."

36. *Once-a-while.* In the early summer of 1904 (*e. g.*, (June 9) she used *once-a-while* in the sense of "once," "some time ago,"—for example, "I had a drink *once-a-while.*"

The words and phrases under this rubric are some of the most interesting in the whole vocabulary.

THE JAPANESE WOMEN'S UNIVERSITY AT TOKYO.

By Theodate L. Smith.

Japan has within the last few decades astonished the world by the rapidity and facility with which she has been assimilating occidental ideas and methods and the skill with which she is meeting the problems which inevitably arise in the mingling of old and new ideas and customs. A striking example of this is found in the Women's University at Tokyo, which graduated its first class of one hundred and twenty students in April, 1903. The first higher normal school for girls in Japan was founded thirty years ago and there has been, since that time, a growing recognition of the need of more advanced educational facilities for women. In 1895 Mr. Jinzo Naruse, now president of the University, announced his project of founding a university for women and promptly secured the sympathy and co-operation of the intelligent and thinking class of the nation, although there was some opposition from the more conservative classes. An association of promoters was formed, funds were collected, and in April, 1900, the University was opened in buildings erected upon land given by the Mitsui family. Even before the opening of the University the number of applications for admission had become so large that hundreds had to be refused because of insufficient accommodations. Three hundred students were admitted to the University department and five hundred more to the preparatory department. In April, 1904, there were eleven hundred and fifty students, of whom five hundred and eighty-two were in the University department. As the entering class this spring was unusually large, that number has now been increased.

The teaching force of the University at the present time consists of forty-one professors, nine instructors and nine lecturers, the latter chiefly from the Imperial University at Tokyo. Among the foreign universities represented on the faculty are Cambridge (England), Clark, Michigan, Wellesley, Wesleyan, and Yale. Of the three foreign professors, two are English and one American.

The aim of the University, as stated in the words of the founder, is "to impart higher education to the daughters of Japan with the object of enabling them satisfactorily to discharge their duties as women, wives and mothers, fully equipped

with ideas and knowledge, in touch with the progress of the nation and the world." With the change of conditions brought about by the present war, it is recognized that a new problem must be faced. Hitherto the number of Japanese men has been in excess of the number of women so that the natural destiny of every Japanese woman was to become a wife and mother. But as a result of the present war many of the present generation of young Japanese women will not marry and must become self supporting. In the opinion of Dean Aso, the great increase in the number of applicants for admission at the time when the financial resources of the country are being so heavily drawn upon was, in large measure, due to realization of the need of higher education for women for whom self support will become necessary. Whether any changes in the curriculum will result from this necessity is a question of the future.

The course of study as it now stands is unique. Instead of transferring the curriculum of colleges for men to the Women's University, Japan has, at the very outset of higher education for women, recognized the problems of differentiation which, after the experience of over a quarter of a century, we are in a position better to appreciate than when the first colleges for women were founded. Realizing from the first that the two chief arguments which could be brought to bear against the University by the opponents of higher education for women were injury to health and loss of the womanly grace and charm for which Japanese women are so justly celebrated, great attention has been paid to hygiene and physical development, and the curriculum has been arranged with the view of keeping what was most desirable in the old regime while liberal provision is made for the new. Nor must it be forgotten, in considering this curriculum, that higher education for women in Japan means a far greater change than it did in the United States and because of its rapid development is far more revolutionary.

The Japanese Women's University, at present, offers three courses of instruction, Domestic Science Course, Japanese Literature Course, and English Literature Course. These differ chiefly in the arrangement of required and elective studies, with the exception of the English Literature Course which requires a large proportion of work done in English. In all the courses, psychology, child study, ethics, hygiene, education and nursing of children, and history of fine arts are required. Subjects either required or elective, according to the course, are physiology, chemistry, physics, nature study, household economy, Japanese history, literature, and classics, occidental history, philosophy and history of philosophy, domestic science and art, economics, the constitution and civil code, English, music, drawing and painting. Instruction is also given in Japanese

etiquette, the art of flower arranging and the Cha No Yu ceremony, perfection in which is, perhaps, the *ne plus ultra* of refined ceremonial. The most noticeable omission in the curriculum, as compared with those of our colleges, is mathematics; the entrance requirement in that subject, however, being the same as our own, *i. e.*, algebra and plane geometry. Should there be a demand for higher mathematics they would probably be developed in the elective courses. It is possible that some of the women of our country may wish that they had so developed in American colleges. Entrance requirements in general, correspond very closely with those of American colleges, as primary and secondary education in Japan is modelled after our system. Japanese and Chinese classics take the place of Greek and Latin, and English is, at present, the only foreign modern language. The methods of instruction and courses in philosophy, psychology, and the natural sciences are those of European and American Universities, the professors having been trained either in foreign universities or by those who have returned from foreign universities to teach in Japanese institutions. The curriculum presents some interesting contrasts and the mingling of the old with the new, the oriental with the occidental, the theoretical and the practical are especially noteworthy. These Japanese girls work in chemical and physical laboratories in accordance with the latest scientific methods, and are trained in the intricacies of Japanese etiquette. (In this respect our own colleges might profitably adopt Japanese methods, for there is certainly wide room for improvement in the manners of American college girls.) They play basket ball and study Ceremonial Tea; they become learned in the Chinese classics—far more difficult than the Greek or Roman—and receive practical training in cooking and housekeeping; they study economics and the civil code and are instructed in Japanese fairy tales and the art of flower arranging. The length of the course is three years and post-graduate work is also offered, the length of any course of the studies pursued in a graduate course being limited to less than three years.

There is a dormitory system and the students share in the household work. Students in advanced classes hold in turn the position of a head woman (Shufu) and learn the management of a home under the supervision of a matron appointed by the University. One dormitory is built and furnished in foreign style and is in charge of an English professor. Students who wish to do so may live in this dormitory and learn the ways of English home life.

At the first commencement of the University a society was organized which includes many of the features of our alumnæ associations but has a much wider and more varied scope. Its

membership includes as regular members all graduates of the University, the senior class as associate members, the faculty and promoters of the University as special and honorary members. Its objects are (1) to promote social interest among members, (2) to strengthen the relation between the University and members of the society, (3) to promote the interests of the University, (4) to promote the spirit of united effort. This last is especially significant since until the comparatively recent change (1867) from the feudal to the imperial government, the Japanese as a nation have been lacking in the spirit of co-operation and united effort, the feudal system being directly opposed to any national concerted effort. An annual meeting is held at commencement time and regular meetings once a month. These latter are meetings of the local branches of the society, held whenever there is a sufficient number of graduates to form a group. These local clubs must send a representative to each annual meeting and are *pledged to answer all questions of investigation*. There are three departments of investigation: domestic, social, and educational. There is also an industrial department whose object is "to propagate economic ideas and the spirit of labor, frugality, and independence." In the practical working out of this idea six departments have been organized; a commercial department, in which student members sell to the faculty and students, toilet articles and various small wares; a book department, in which text-books and periodicals are for sale; a department of animal industry, devoted to the raising of cows, pigs, poultry, fish and bees; a gardening department, which includes the raising and sale of both vegetables and flowers; a cooking department, whose products are sold; and a banking department. This latter is really a local bank which issues its own notes as college currency and carries on business according to regular methods.

The students of the University also publish a weekly paper which is said to compare favorably with any weekly in Japan. It is illustrated and contains articles on topics of social interest, war news, and especially any items in regard to women's relief work, reports of lectures, articles on nature study, poultry and bee raising, gardening, cooking, household decoration and short stories and essays.

For the information in this article I am indebted to Prof. Aso, Dean of the Japanese Women's University, and to Mr. Kuma, who has kindly translated material otherwise inaccessible.

A CONTRIBUTION TO THE HYGIENE OF TEACHING.[1]

By Wm. H. Burnham.

In the schools of Europe and North America there are perhaps two million school teachers; in the United States alone, over 500,000. The hygiene of this great army of teachers is as important as military hygiene. In regard to the latter, however, we have special handbooks, in regard to the former, none. The hygiene of teaching is not quite the same as school hygiene. We often find schoolhouses or schoolrooms hygienic for the pupils, but in some respects injurious to the teachers; for the schoolhouse is usually built and arranged solely with regard to the health of the child. Only in very recent years have a few hygienists begun to consider the special conditions that favor the health of teachers.

In regard to the mortality and morbidity of teachers we have no adequate statistics. Special investigations, however, have been made in Germany by Blöckh and Klatt, by Lexis, Goldhahn, Siegel, Wichmann and others. While the results indicate that the mortality of teachers in the *Volkschulen* is less than that of the general population; and, while that of teachers in the higher schools does not compare unfavorably with that of those in other learned professions, it appears that, as regards morbidity, teachers represent an unfavorable class. For example, Dr. Siegel's study of 1,157 teachers in Leipzig showed 42.8% suffering from definite diseases, although the candidates who enter the profession represent a sifted material that should be specially free from disease.[2]

The observation and experience of many physicians indicate

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[1] This preliminary report was contributed to the First International Congress of School Hygiene, Nuremberg, 4th-9th April, 1904.

Limitations of time and space forbade the presentation of the results of important investigations that bear more or less directly upon this subject; noteworthy among these are the studies of Binet, Nouvelles Recherches sur la Consommation du Pain dans ses Rapports avec le Travail Intellectuel, L'Année Psychologique, 1899. Paris, 1900. Vol. VI, pp. 1-73. Also Vol. IV. I take this opportunity to thank those superintendents, teachers, and students who generously contributed the answers to my questionnaire.

[2] See Billhardt: Die Lehrer Leipzigs, Leipz. Lehrerzg. Nr. 32, S. 317 f.

that teachers are specially subject to diseases of the throat and respiratory organs,—catarrh, throat troubles, tuberculosis, and the like; and the investigations by Wichmann corroborate common observation and experience that a very large per centage of teachers suffer from nervous diseases. At least as regards throat and lung diseases and nervous disorders, teaching is an occupation hazardous to health.

I.

In order to get definite information in regard to school conditions unfavorable to the health of teachers a questionnaire asking, "What conditions in the schoolhouse or its surroundings and in school instruction have you found injurious to your own health?" was sent to the teachers in several cities. Replies were received from a large proportion of the teachers in two New England cities, one Western city, and a few from other sources. A preliminary report based upon 500 answers to this question can be made.

As the schoolhouses in these cities as a rule are good and most of the teachers replying probably are located in good buildings, a negative answer from the majority was to be expected; and again, as American teachers are apt to be hurried with school work, many perhaps would answer such a question negatively without much reflection, when upon a little thought several injurious conditions would be reported. Further, certain conditions were evidently recognized as unhygienic although the writer had not found them injurious personally.

The result showed that 62.6% of the teachers answered "none" to this question. Of the other 37% who mentioned injurious conditions, more mentioned poor ventilation directly than anything else; namely, 10.8% of all the teachers who replied. Nervous strain was mentioned directly by the next highest number; namely, 7.4%; and two or three other things mentioned should be included under this head of conditions tending to produce nervous strain, namely, the over-crowding of classes mentioned by 2.6%, teaching too many subjects mentioned by 1.6%, too long a period of work without rest mentioned by 1.4%, and the outside noise mentioned by 2.8%. Thus we have in round numbers some 15% mentioning nervous strain or conditions that tend to produce it. Facing the light was mentioned over and over again; namely, by 7.2% of all the teachers, and poor light was mentioned by 2.4%; the standing required in the school was mentioned by 4%, and lack of cleanliness in the pupils by 2.2%; chalk dust by 2%.

The injurious conditions mentioned in answer to this question may be roughly grouped as follows:

1. Conditions in the building,—poor ventilation, poor light,

facing the light, coal gas, poor drainage, improper heating, working by gaslight, chalk dust, cold halls, cold floors, draughts, etc.

2. Conditions in the surroundings,—outside noise, nearness to railroad, nearness of out-buildings, dust from street, smoke from factories, nearness to swamps, nearness of tenement blocks, etc.

3. Conditions of the mental work,—correcting many papers, too frequent visitors, over-work, too large classes, crowded curriculum, too long period of work without rest, teaching one class with another in the room, length of session, excessive length of lesson periods, responsibility, extra work for absent teachers, too much supervision, etc.

4. Conditions of the physical work involved in teaching,—standing, climbing stairs, constant use of voice.

5. Special conditions,—contagion from colds, lack of pure drinking water, uncleanliness of the pupils.

Incidentally a second question was asked, "Have you ever suffered from any acute or chronic disease as a direct result of such unhygienic school conditions?" No trustworthy results of quantitative value were obtained in answer to this. Teachers seemed often afraid to answer, unless they could give a negative reply, lest the admission of ill-health might work to their detriment. One writer suggests that no teacher would dare to give her honest opinion in answer to this question, as, if it were found that she suffered from disease, it would be "her death warrant as far as a position goes;" and she adds, "the nerve strain is terrible. I have taught sixteen years, beginning at 20 years of age a healthy, happy American girl. Now (and in fact at the end of my third year in the schoolroom) I am a complete wreck during the vacations. This is not from society but from school work, and there are many more in the same condition."

Plenty of concrete diseases, however, were mentioned; among these, nervous prostration, disease of the eyes, indigestion, headaches, constipation, irregular action of the heart, bronchitis, tonsilitis, grippe, chronic cough, and other throat diseases.

If the same question were asked teachers in the rural districts probably somewhat different results would be obtained. The investigation has not yet been extended to any large number of such teachers, but the questionnaire has been presented to the rural teachers in one county in Indiana. In all 55 teachers answered. The main results were as follows: in answer to the first question 11 or 20% gave a negative reply, 44 or 80% mentioned injurious conditions. Among the injurious conditions mentioned, poor heating and ventilation led, being mentioned by 24 or 43.64%; bad location of the building, bad water, un-

pleasant rooms, and the like, were mentioned by 23 or 41.82%; improper lighting by 7 or 12.73%; nervous strain, over-work, confinement in school, and the like by 7 or 12.73%. In answer to the second question, 13 or 23.64% mentioned diseases caused or aggravated by such unhygienic conditions. As might be expected, conditions injurious to health are found apparently by a much larger percentage of rural teachers than by those in the best city schools.

These results are apparently typical for cities in the United States having the best schools, at least for cities in New England and the Middle West. The number of replies is not large, but as a control experiment the same question was asked a group of superintendents and teachers of all grades gathered from different parts of the U. S. during the Summer School at Clark University in 1903. The answers of this group gave substantially the same results.

If we may trust these results, it appears that, while the majority of teachers in our best city schools do not find the conditions directly injurious to health, there are many avoidable conditions injurious to the teacher, especially as regards ventilation, lighting, cleanliness and the surroundings of the schoolhouse; and that the injurious conditions most frequently noted by teachers, *i. e.*, lack of ventilation and conditions producing nervous strain, are the ones that tend to produce or aggravate the diseases to which teachers seem especially liable, namely, throat and lung diseases and neurasthenia.

II. Hygienic Conditions in Normal Schools.

In the course of this investigation the importance of studying the hygienic conditions of normal schools was suggested, and later on emphasized by the results of Wichmann's[1] investigations among male teachers. This latter investigator found that 47% of the cases of nervousness occurred in the first five years after the teachers' examination and nearly half of these in the first year.

Accordingly, another questionnaire was sent to normal school students asking the following questions:

"1. What conditions in the normal school building and surroundings and in the methods and course of instruction have you found beneficial or injurious to your own health?"

"2. What changes in your physical condition, such as increase in height or weight, or loss of weight, improvement in health or loss of health, or special illness, or the like, have you noticed since you entered the normal school?"

"3. Please give a full account of your day's programme,—

[1] Zeitschrift für Schulgesundheitspflege, 1903, No. 11, S. 787 f.

amount of time devoted to study, to exercise, to recreation, to sleep, etc., and mention at what time in the day you feel best able to study, and when most fatigued."

This investigation is now in progress, but more than 500 students have already replied, and the answers given are as a rule full and carefully written; hence a preliminary report in regard to some of the points mentioned can be presented, and although further investigation will somewhat change the figures and correct some inaccuracies, still the results already obtained are probably typical.

The schools included in this report are all State normal schools. One is in New England, three in the Middle West, two in the Middle States. These schools are co-educational, but most of the students are girls. As in some cases the sex of the writer was not mentioned, the answers for the boys could not be studied separately. In most cases the answers were given by seniors or at least by those who had been in the school for one year.

Of the total of 569 pupils who answered, 407 or 71.53% mentioned conditions beneficial to health, while 347 or 60.99% mentioned conditions injurious to health. And 145 or 25.48% reported improvement in their own health since entering the normal school, while 112 or 19.68% reported impairment of health.

As these students were in the later stage of adolescence, improvement in health under the regular life of the normal school should be expected; that 20% report impairment of health is a very noteworthy result. It is true that in some cases this was only trouble with the eyes; but, as recent studies indicate, this is not only serious in itself, but likely to be a symptom of general impairment of health. Besides those included in this number who report loss of health, others mention the fact that they suffer from special diseases,—colds, trouble with the eyes, severe headache, nervousness, and the like, as the direct result of conditions of the normal school work, although stating that in general their health has been improved. The answer of one student is noteworthy, she writes: "The past year my health has improved, but I do not credit the school for it. In fact, I become very nervous at times due to the great strain and nervous haste of my daily surroundings."

The results as regards these points are given in the accompanying table for each school separately.

Many conditions injurious to health were mentioned. Among those most frequently noted were poor ventilation, the climbing of stairs, and over-pressure and nervous strain from too many studies, lack of recreation, and the like.

No. and location of school.	No. of Students.	No. Answering.	No. who mention beneficial conditions.		No. who mention injurious conditions.		No. who note improvement in health.		No. who note loss of health.	
			No.	%	No.	%	No.	%	No.	%
No. 1. (Middle States) A school with over-crowded curriculum.		297	220	74.08	186	62.63	68	22.90	31	10.44*
No. 2. (New England) Almost a model school, . .	28	28	23	82.14	21	75.00	8	28.57	7	25.00
No. 3. (Middle West), . . .	96	76	37	48.68	45	59.21	15	19.74	15	19.74
No. 4. (Middle West), . . .		26	21	80.77	23	88.46	5	19.23	16	61.54
No. 5. (Middle West) Has recently put in new system of ventilation, . . .	120	107	81	75.70	53	49.53	38	35.51	32	29.91
No. 6. (Middle States), . .		35	25	71.43	19	54.29	11	31.43	11	31.43
Total,		569	407	71.53	347	60.99	145	25.48	112	19.68

The details for the school sending the largest number of replies are shown in the following table:

STATE NORMAL SCHOOL NO. 1.

(Middle States. 297 papers examined.)

I. A. Conditions beneficial to health:

1. Work in the gynasium,	134
2. The regularity of school life,	99
3. General comfort of the school home,	21
4. The skating pond,	7
5. Voice culture,	3
6. The athletic field,	1

B. Conditions injurious to health:

1. Exposure in passing from dormitory to

*These figures would be much larger were a large number reporting merely eye trouble or nervousness included.

recitation hall, or from one recitation room to another of different temperature, or from a warm study to a cold hall, etc. 73
2. Too many studies with attendant hurry, strain, worry, 48
3. Poor ventilation of recitation rooms, 22
4. Poor ventilation of students' rooms, 19
5. Uncomfortable seats in recitation rooms, 15
6. Too little sleep, 15
7. Poor lights (electric) in students' rooms, 14
8. Too long from breakfast (6:30) to dinner (12:40), 14
9. Lack of outdoor exercise, 13
10. Gymnasium work excessively fatiguing, 8
11. Lavatories unsanitary, 7
12. Food improperly cooked or lacking in variety, 6
13. Climbing stairs, 5
14. Worry over examinations, 5
15. Unclean rooms, 2

II. Height. Increased, 108
Weight.
Gain, 156
Loss, 36
Health.
Gain, 68
Loss, 31
No change, 56
Special Illness,—dizzy spells, boils, backache, indigestion, hives, tonsilitis, sore throat, felon, nervous prostration, grippe, mumps, rheumatism, headache, stomach trouble, heart pains, *colds* (epidemic of).
More nervous than before coming to normal school, 23
Suffer from excessive fatigue, 14
Have trouble with eyes, 26

III. Average number of recitations per student, 6.36
Average time spent in recitation (class period 45 min.), 4.77 hrs.
Average time spent in study, 4.17 "
Average No. of hrs. in students' working day, 8.94 "
Average time for exercise, 55 min.

Average time for recreation,		1.4 hrs.
" " " sleep,		7.89 "
Best able to study,		
Early morning,	205	
Afternoon,	4	
Evening,	41	
Most fatigued,		
11:45 A. M. 2 P. M. (Last period before and first after dinner),		74
3-5 P. M. (Late afternoon),		97
8-10 P. M.		74

The conditions in this school are in the main typical.

The features reported as distinctly beneficial to health are the gymnastic exercises and the regularity of school life. The conditions specially injurious to health are poor heating and ventilation, and over-pressure resulting from too many studies with attendant hurry, strain, and worry, and too long hours of work.

Although the curriculum of this school is unusually congested, and a long day's work is necessary, it appears that, as a rule, students in other normal schools devote as much time to recitation and study taken together, and in individual cases the total time devoted to school work amounts to 12 or 13 hours daily.

Each school has an individual character and is likely to show some individual features beneficial or injurious on account of local conditions. This was strongly shown in the case of School No. 2, which is almost a model as regards hygiene; over 70% of the pupils from this school mention the climbing of stairs as injurious to their health. Again in the case of School No. 5, a new system of heating and ventilation had recently been installed and the benefits from this were again and again mentioned by pupils, *e. g.*, a diminution of headache, and the like.

It is probably true that these results are typical also of the work in the normal schools in other countries. At the Twelfth International Medical Congress, Dr. Baranowsky reported on over-pressure of pupils in the normal schools, and according to his estimate the number of hours per week in the Austrian seminaries is 28 to 30; in some provinces, 30 to 40; in the Italian seminaries, 30 to 33; in the Swiss, 33 to 40; in the French, 30 to 35. He estimates, also, that from 4 to 5 hours a day are spent in home study; a total of from 10 to 12 hours daily of mental work results.

The aim of this study has been to determine certain general principles in regard to the hygiene of normal schools, not to gather health statistics; and the results are quite sufficient to

show in general outline the hygienic rules to be specially considered in arranging a normal school building and planning the methods and course of instruction.

The injurious conditions which should especially be guarded against, as indicated by this study, are poor ventilation, imperfect heating, draughts, and the climbing of stairs. As far as the work and methods are concerned,—an over-crowded curriculum, too early breakfast hour, too little opportunity for leisure, the monotonous routine, the strain upon the eyes, too long a period of daily work, haste, worry, etc.

III. Conclusion.

It is desirable that further investigations in regard to the hygiene of teaching should be made. In regard to the details of morbidity among teachers, we have no satisfactory data; to what extent the prevalent diseases are caused by conditions of the teacher's work, we do not know; whether it be true, as Moebius suggests, that students of neurotic heredity are drawn into the teaching profession, or whether the numerous cases of nervousness found among teachers are caused by the conditions of the teacher's work, we do not know. From the results of the few studies that have already been made in Germany and in America, certain general inferences seem to be warranted, and they are strongly emphasized by the investigations here reported.

1. It appears that teaching is an occupation hazardous to health; throat and lung diseases and nervous disorders are specially prevalent. The prevalence of tuberculosis among teachers is a menace to society because of the danger of contagion by the pupils. Hardly in less degree, perhaps, the prevalence of nervousness among teachers is a social menace for a similar reason.

2. Special care should be taken in arranging school buildings for the utmost degree of cleanliness, good ventilation. and lighting with regard for the teacher.

3. Special care should be taken to reduce to a minimum the causes that tend to produce nervous strain; most needed of all, perhaps, is a reduction of the number of pupils allotted to each teacher. The school day, for the sake of the teacher as well as of the pupils, should not be more than five hours in length and suitably broken by recesses and brief pauses after each period of recitation.

4. The key to improvement in the health of teachers is to be found in the normal schools.

5. The aim of normal school training should be to develop habits of healthful activity and to prepare teachers to adjust, if necessary, to unhygienic conditions and protect themselves

against the inevitable dangers connected with the teacher's calling.

6. The normal school students should be taught personal hygiene, especially with regard to the hygiene of the throat and lungs and proper use of the voice; and also they should be trained to habits of mental hygiene,—proper habits as regards sleep, alternation of periods of work and rest, avoidance of worry, and the like.

7. The essentials of school hygiene should be taught in every normal school. It seems strange that this subject,—almost the only branch of pedagogy which has been studied by scientific methods—should be usually omitted from the normal school programme or inadequately taught. A reform in normal school training in this respect, and the introduction of this subject with instruction by competent teachers, should be imperatively demanded by this Congress.

8. Instruction in school hygiene should be given by example in the normal school, as well as by precept, in order that the students may learn by direct experience of the benefits of hygiene. Specially is this true as regards matters of cleanliness, ventilation, lighting, care of the voice and the eyes, etc.

9. Special care should be taken in the normal school for training in mental hygiene. The special reform needed is the introduction of an eight-hour day and a lessening of the nervous strain by simplification of the curriculum and a better distribution of the periods of work and rest during the day.

PERCEPTION OF CHILDREN.

By Will S. Monroe, State Normal School, Westfield, Mass.

During the past century, sense-training, in one form or another, has occupied a commanding place in all modern schemes of elementary education. Pestalozzi was the first great educator to recognize in practice that sensations pour into the child's mind from the hour of his birth; and that during the years of most rapid brain growth, he lives mentally an essentially sense life.

Fröbel and Pestalozzi in their systems of education provided, accordingly, for these nascent periods of sense development and they devised definite and formal schemes for the apprehension and perception of the raw meterials thus furnished to the young mind by the senses. Their schemes outlined a more or less orderly approach to the study of concrete objects through color, form, size, material, arrangement of parts, and the like.

This order was supposed to follow the child's line of interest and to represent a logical order of development; and for a hundred years the followers of Pestalozzi and Fröbel have studiously followed this order in object lessons and kindergarten exercises. Fifteen years ago Professor Alfred Binet, (4) of the University of Paris, raised the question of the qualities of objects of most interest to children; and, in consequence, the most readily perceived. Observations were made on two little girls in his own family, aged respectively, two and a half and four and a half years. He asked them what they meant by common words which he heard them frequently use—such as horse, clock, bottle, etc.,—and he wrote down exactly what they said.

After an interval of time he repeated the same list; and after fifteen such repetitions, he collated his results, which show that the greatest interests lay first in the use of the common objects, and secondly in their movements. They almost never described an object by telling its color, form, size, material and structure. They gave not the qualities of the object, but what the object was good for and what it could do.

Professor Earl Barnes (1) was the first in America to call attention to the results of Professor Binet's study, and to point out that not only does our work in elementary science concern itself with common objects in the child's environment, but that

most of the work in reading, number, and language is of a concrete character and is carried on in connection with common objects.

Professor Barnes verified the results of Binet by repeating the test with two thousand California school children between the ages of six and sixteen years. He prepared a list of thirty-three common words such as knife, bread, doll, water, hat, garden, table, bird, dog, clock, etc. Teachers were requested to dictate the list at the time of the spelling lesson. The children were simply asked to tell what is so and so. Teachers were requested to give no other directions; and they were cautioned against asking the children to define the words.

The rubrics under which the children's answers were grouped, and the percentages falling under each group, were as follows: Use, 50%; larger term (concept), 18%; substance (material), 9%; action, 4%; structure, 4%; quality, 4%; place, 4%; form, 2%; color, less than 1%. Use was a dominant interest with the youngest children. At the age of six years, 77% of these children define common words by telling their use. At the age of nine, use is given by 63% of the children; at twelve years, 42% and at fifteen years, 33%. Concept, or larger term, increases with advance in years: At the age of six, it is given by less than 5% of the children; at nine years, 11%; at twelve years, 18%; and at fifteen years, 40%. The striking fact in Professor Barnes's study is the small place occupied by color, form, size, and the other traditional rubrics.

I provided 2,191 children in the elementary schools of Massachusetts with cancelled two-cent postage stamps; and during a period customarily devoted to language work, the children were requested to "write an account of this postage stamp so that one who had never seen it would know all about it." From twenty to thirty minutes were given for the exercise. Returns were received from 985 boys and from 1,206 girls. The children ranged in age from seven to seventeen years. The following papers are given as fairly typical.

Girl, 8 years old: "The postage stamp has a picture in it. The postage stamp costs two cents. It says united states postage on it. The man has hair braided in back of his head. The Boarder is round. It has arms on it. The shape is square. The color is red. The man is White. You can get these to the postice [post-office] for two cents. There are lines around the boarder. The back of the stamp is white. It has nomber 2 on each side of it. The man has long hair."

Boy, 16 years old: "Comments on the accompanying U. S. of America 2 cent Postage Stamp [Heading]. 1. Its meaning: The Postage stamps have glorious history. In the past 57 years they have been more and more useful until now they are not

only absolutely necessary, but constitute one of the great helps in the study of Geography, and one of the noblest pleasures for thousands and millions of People; Kings and Queens as well as children in the most miserable social condition.

"2. This Postage Stamp has the red color and is now next to the one penny stamp of Great Britain the most extensively used stamp used in the world. If I am not wrong its circulation in the past and present is the next largest of all others. The one penny stamp, I think has the first place.

"3. Its surroundings are very interesting. It is mounted on a piece of paper, remainder of an envelope, which fact easily indicates that it is used in the most cases for letter correspondence. I notice that it has two imprints (that it is used), on one of them I recognize the indication that it is used in one Massachusetts Post office. What is the meaning of the other imprint, if not the No. of the Post Office in a larger city, I cannot imagine.

"4. The Stamp itself. An approximately rectangular piece of paper colored red with the picture of the head of Washington printed in the middle, just below and on the left and right sides the numerals 2—2, and below in letters TWO CENTS, Just above the head in one are the words 'United States of America' in white. Other ornamentations are introduced here and there. It remains now after doing its faithful service ready to go in some album or else in some other collection of comrade-stamps.

"5. Some particular observations. I had 500-600 of them at home which my cousin had the kindness to send me. Of course they are of no special value, but yet they teach my little brothers the important lesson that such a little thing, like a stamp, will do all the necessary things for the transportation of a letter or other mail matter from the Atlantic to the Pacific. It is very interesting to me that with the march of civilization the great Postal system of the World has increased its actions more and more until it is now one of the chief functions under the sun. How much this single stamp has done I cannot say, but I know that some stamps, precisely like this, have done great service to the country."

The compositions were read and the descriptions collated under the following rubrics: Use, substance, color, form, size, cancellation mark, perforation, portrait correctly named, word-inscriptions, number-inscriptions, decorations, and miscellaneous.

The word-inscriptions ("United States" and "two cents") were oftenest given by the children, having been mentioned by about 70% of the whole number; and the number-inscription (the two "2's") came third in frequency, having been given

by about 60% of the children. At the age of seven years, word-inscriptions were given by 9% of the boys and 30% of the girls with marked increase with advance in years. The number-inscriptions were given by 25% of the boys and 30% of the girls; there was increase with advance in years, but this increase was less marked than in the case of the word-inscriptions. When one recalls the emphasis placed upon learning to recognize words and numbers during the early years of the elementary school course, little importance can be attached to these two rubrics.

The eight diagrams which accompany this article indicate the other dominant lines of interest. The figures on the left side of the diagrams indicate percentages, and the figures at the top of the diagrams indicate ages. The continuous lines represent the boys and the broken lines the girls. It will be seen that, with the younger children, color and use are the strongest interests, and that form, size and substance are comparatively insignificant until the tenth year, thus agreeing—to except the color interest—with the studies of Professors Binet and Barnes. Diagram I, which follows, gives the curve for mention of color. It will be seen that at all ages the girls mention color more often than the boys; and that the curve of color-interest of the girls progresses more steadily than that of the boys.

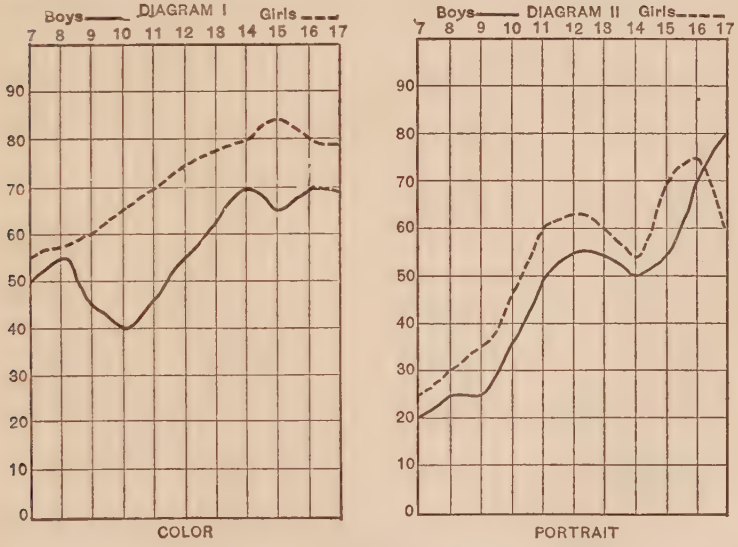


DIAGRAM I.

The curve for the portrait gives only the results of the chil-

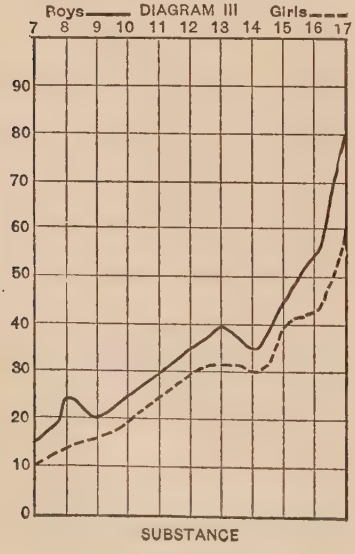
dren who named it correctly. In fact, most of the children who referred to the portrait at all named it correctly. Of the 60% who mentioned the portrait, more than 54% correctly identified it. "Christopher Columbus" and "the head of a woman" were oftenest mentioned by those giving incorrect answers. Diagram II, which follows, gives, therefore, only the result of the correct answers.

DIAGRAM II.

Substance—paper, mucilage, ink, the material in the stamp—did not appeal strongly to the young children. At the age of seven, 15% of the boys and 10% of the girls mention substance. The noteworthy fact about substance is that it is the only rubric in which the boys at all ages lead the girls. As will be seen from the other diagrams, the girls generally led the boys in the number of statements made about the stamp. Of the whole number of children tested, substance is mentioned by 51%.

DIAGRAM III.

At the age of seven none of the children refer to the form of the stamp; and at the age of eight, none of the boys and but 4% of the girls. The most rapid increase in form-interest comes after the age of fourteen. Forty per cent. of the children mention form, about a third of whom mentioned forms bearing more or less resemblance to the form of the stamp. Diagram IV, which follows, gives the percentages of all the children mentioning form.



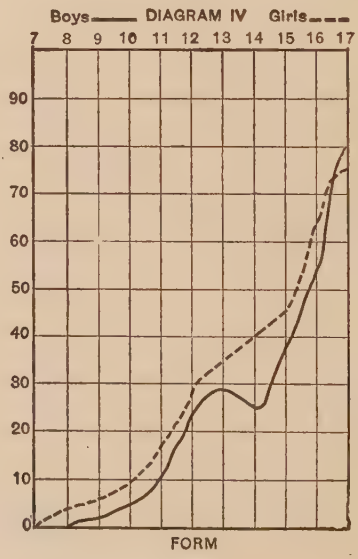


DIAGRAM IV.

Use—after color—was the oftenest mentioned of the qualities commonly studied in objects. At seven, 45% of the boys and nearly 47% of the girls mention the use of the stamp. Use seems to decrease until about the age of ten when there is manifest increase of interest with the girls until twelve and with the boys until between the ages of thirteen and fourteen years. After these ages there is general decrease, although at the age of seventeen, 20% of both sexes still mention the use of the stamp. The curves in diagram V agree in the main with those in Professor Barnes's study.

DIAGRAM V.

The perforated edges—one of the characteristics of the stamp—were not noted by many of the young children. The girls surpassed the boys up to the age of twelve but thereafter the boys lead. A little more than 25% of the whole number of children tested mention perforation, as will be seen by diagram VI.

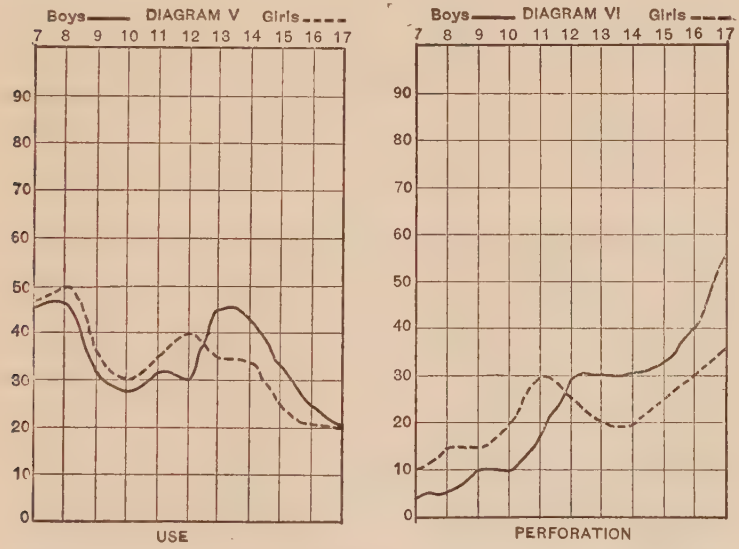


DIAGRAM VI.

Size like form is not mentioned by the youngest children. At the age of seven none of the boys and but 4% of the girls allude to size, and at eight years only one-half of one per cent. of the boys and but 5% of the girls mention size. Less than 25% of the whole number tested refer to size at all.

DIAGRAM VII.

Cancellation marks, which would be means of identifying the stamp, were mentioned by 19% of the children. All the stamps given the children for observation had been used. Between the ages of nine and fourteen the boys most often refer to cancellation marks; but before and after these ages the girls lead.

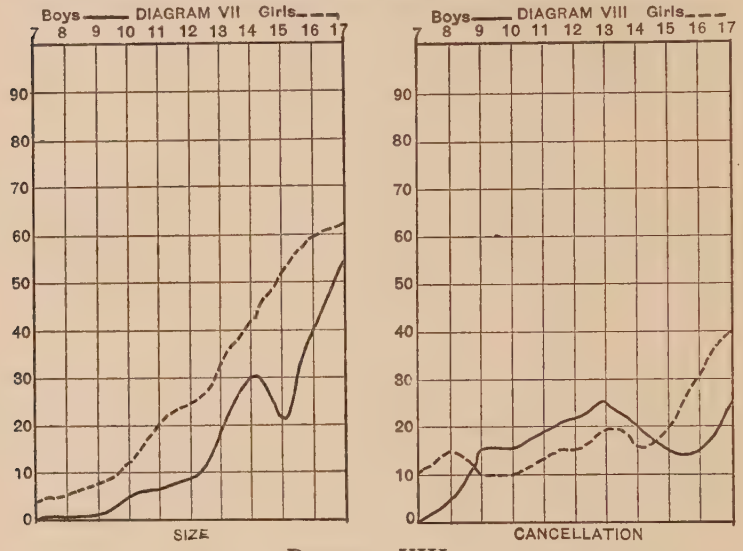


DIAGRAM VIII.

The ornamentations on the stamp were not frequenty observed. The small trefoils were noted by about 14% of the children, and chiefly by the older children; and the small scrolls by less than 8% of the children. The white parallel lines, the oval about the portrait, the triangles in the lower edges, and the shading of the stamp were also observed by a few of the older children; but as a rule the æsthetic features in the stamp were not perceived.

Among miscellaneous facts perceived were the style of the hair, expression of the face in the portrait, where the stamps are made, penalty for using cancelled stamps, and where the stamp should be placed on the envelope. Some of the children drew the stamp (12% of the boys and 13% of the girls). Apparently some of them recognized their own inability to describe the stamp with sufficient accuracy so that "one who had never seen it would know all about it," and they endeavored to supplement their written descriptions with what must have seemed to them a more graphic representation. One child in fact said: "If he would not know the stamp by what I say here is the picture below." And a reasonably accurate draw-

ing follows. Drawing was generally resorted to by the children who gave the least accurate written descriptions.

The question may reasonably be asked, to what extent do the facts observed by the children represent their lines of interest; and, representing their lines of interest, to what extent should the same be taken into account in school instruction? Professor Barnes (1) maintains that children's interests in common objects develop according to pretty definite laws, and these laws he thinks should be determined and used as a basis of educational procedure. He thinks it quite possible to establish a course of instruction for the seven-year-old child, for example, after we have made a sufficient number of such tests which will rest on a basis as scientific as our treatment of typhoid fever.

The lines of interest in the postage stamp, as indicated by the whole number of different statements by all the children, are: Word-inscriptions, color, number-inscriptions, portrait, substance, form, use, perforation, size, cancellation, and ornamentations. To some extent the children perceive in the postage stamp what they have been taught to perceive in common objects, so that the study may reflect the prevailing methods of the teachers rather than the dominant interests of the children. In most of the essential lines of observation the conceptions of the children widen with advance in years; use is the only rubric which vanishes as the children mature.

Sex differences are the most marked features of the study. It will be noted that in all the essential lines of observation that the girls lead the boys; they not only tell more about the stamp, but in many instances their observations show a higher order of intellectual discrimination. They *seem* to surpass the boys in their knowledge of the postage stamp; and they certainly surpass the boys in their ability to tell what they know about the stamp. Does this apparent superiority of the girls, asks Professor Barnes, mean that they are better observers than the boys, more studious than the boys, or have better powers of expression than the boys?

The study made in Berlin (2) some twenty-five years ago, which sought to ascertain the extent of the common knowledge of children upon entering school, throws some light on these questions. It is reported in the Berlin study that the easiest and most widely diffused concepts were commonest among girls; but that the more difficult, special and exceptional concepts were oftenest given by the boys. The girls excelled in nature and space concepts, but the boys excelled in number and religious concepts. Girls excelled in fairy tales, but boys could repeat more accurately the sentences said to them and the songs sung to them than the girls.

G. Stanley Hall (11), who initiated the child study move-

ment in the United States twenty-five years ago, repeated the Berlin test in the schools of Boston. He found that girls excel in knowledge of parts of the body, home, and family, and that their stories are more imaginative; but that their power to sing and articulate correctly from dictation is distinctly less than that of boys, as well as their acquaintance with numbers and animals.

In the numerous studies on the reaction time of school children there is manifest superiority of girls in the matter of rapidity of perception. The ability to respond muscularly to a signal indicates a degree of intelligence, which may not be of the highest order. In his tests of the capacity of the two sexes to read rapidly, the late George J. Romanes (18) found that women were not only able to read more rapidly than the men, but that they were able to give a better account of what they had read than the men. But he did not find that rapidity of reading was correlated with mental efficiency. In fact some of his brightest subjects were the slowest readers, and some of his most rapid readers were his most stupid subjects.

Havelock Ellis (8) has pointed out in this connection that women are much like children in their apitudes for the rapid accumulation of facts. He says: "In youth we read rapidly, but it is within the experience of many of us that on coming to reach adult age we come to read more and more slowly. It is as though in early age every statement was admitted immediately and without inspection to fill the vacant chamber of the mind, while in adult age every statement undergoes an instinctive process of cross-examination. Every new fact seems to stir up the accumulated stores of facts among which it intrudes, and so impedes rapidity of mental action. It is so with the impulse to action. In the simply organized mind this is direct and immediate."

It is well known of course that girls attain their growth and that they mature physically before the boys, so that in most instances the ten-year-old girl is comparable with the twelve-year-old boy. In consequence the girls represent degrees of superiority which are more apparent than real, since the boys continue to develop after the girls have attained their maturity. What Bowditch, Porter, Peckham and others have pointed out with reference to the earlier attainment of girls in physical growth, holds true in a measure in the mental development of the two sexes.

Then, also, girls surpass boys in their powers of expression. Buckle (5) has called attention to the fact of the ready wit and the quick power of perception common among women; and he attributes this superiority to a tendency of the feminine mind to start from ideas rather than from the patient collection of facts. He refers to the notable superiority of women in quick-

ness of intelligence among the lower social classes of Europe; and, to a fact that is well known to every traveller, that in a foreign land one can always make his wants more readily known to the women than to the men. Not only is there greater facility in the use of language among girls than among boys, but speech defects—stuttering, stammering and the like—are three times greater among boys than among girls. The only difference among the sexes may be sex, but that difference, after all, seems pretty profound.

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CHILD STUDY AND RELATED TOPICS IN RECENT ITALIAN SCIENTIFIC LITERATURE.

By Alexander F. Chamberlain.

This article is intended to give brief critical résumés of recent Italian investigations and discussions concerning child study and related subjects of psychological or pedagogical interest. No attempt at exhausting contemporary literature has been made and the works discussed are such as the present writer has found, either through his own experience, or that of others, to be of more than passing worth.

I. *Child Life.* In her *La vita dei bambini* (17), Paola Lombroso has added another to her interesting volumes on the child. After a general introduction treating of child study come six chapters on the following topics: The extrinsecation of the idea of conservation in the child, the mentality of the child and the law of least energy, the evolution of ideas in the child, why do fairy tales and fables please children? Children's drawings, the psychology of poor children. The great law of childhood, according to the author, is the prepotent sense of self-preservation and self-protection, its remarkable tendency to accept and to assimilate such elements as will advantage and favor its physical and psychical expansion. The chief difference between the adult and the child lies in the fact that the former tends to exalt the social, the latter the organic *ego.* In the light of this, "sense of preservation" the apparent contradictions in the affective life of the child turn out to be "perfectly logical and justifiable." So, too, affective insensibility, the phases of love and jealousy, and the enjoyment into which every element of life is so readily metamorphosed,—likewise the escape from painful sensations, the pursuit of happiness, etc. The child is psychically organized for the avoidance of pain and the utilization of pleasure; optimism and courage belong to it as such; it has a wonderful fund of passive and defensive optimism. Play is for the child the natural and instinctive "hunt for enjoyment;" the avoidance of work, which means exercise of faculties with exertion (such as play does not require) is also natural and instinctive. In the intellectual development of the child, particularly in the field of language, the law of least effort is exemplified in the nature of its gestures, its onomatopœic terms, its curious associations between distant ideas, its simple explanations and strange interpretations of things and phenomena, its repugnance for the indeterminate, its predilection for concrete terms and things, its pleasure in repetition, its misoneism, etc. All this ought to lead us to fit our educational institutions to the instincts of children; to second their plays by discovering and helping the characteristic forms of their aptitudes as individuals. In Chapter III, treating of "The evolution of children's ideas," the author gives the results of her study of 100 poor children and 50 children belonging to educated families, as to their ideas of the following terms: Ship, kettle, telegraph, calendar, exposition, court, setting (tramonto), missionary, native (indigeno), drinking water (aqua potabile), foreign and native wines, Alpine excursion. Every word and phrases passes, before it reaches the stage of exactness of identification, a phase of

"negative content" and one of erroneous approximation. Interpretations come by assonance, association, experiment, information, etc. Both in the precocity with which they interpret the words and in the exactness reached the children of the well-to-do and educated families exceed those of the poor in the proportion of 2:1. The vocabulary of the former is also much larger than that of the latter. This indicates that with the children of the poor it is not a question of defect of intelligence, but merely one of deficient education and insufficient environment. The child of the well-to-do has no greater intelligence but finds itself in a *milieu* apt to develop it more rapidly. Not a plethora of imagination, but rather a lack of it, is the reason for the child's delight in fairy-tales, wonder-stories, fables, etc. For the child these things are what poetry is to the adolescent and science to the adult,—the natural food for it at that period, the notion-world out of which it will gradually and safely grow, and which it will abandon as easily as it gives up its toys and playthings. In the chapter on "Drawing," which is illustrated by 32 figures reproducing the efforts of children, attention is called to the rarity of decorative *motifs* and to the "mania for imitation." Noteworthy, also, is the tendency to give to graphic representations a dramatic sense. The drawings of children are not so much attempts to reproduce the true, as efforts to illustrate the dramatic fancies of their minds. As the result of her observation of poor children, we learn that "in the poor children appears reduced to its simplest terms and void of all artifice and stript of every veil the tenacious and egoistic instinct of self-preservation, which, with the children of the well-to-do, is masked with the graces of wit and affection." They have often a certain philosophic sense of life, a certain ingenuity, a ready sight and an exact knowledge of practical life, related to the needs and necessities of their existence. Mantegazza, the psychologist and anthropologist, in a recent review of this book, does not agree with the statements of the author that the child's imagination is weak and that the child is little sensitive to pain. He considers also venturesome the opinion that the intellectual development of the poor children compared with that of the children of the well-to-do is as 1:2.

II. *Craniology.* Dr. F. Frassetto (6), of Turin, whose detailed and careful investigation is based upon the study of "2,812 adult human skulls, 60 skulls of children, 210 of human fetuses, 119 of anthropoids, 581 of other monkeys, and 519 of various other mammals" concludes that the anomalies met with in the human skull "are only the marks of the hereditary variations of the forms of the primates, which preceded man, and in which the variability and the variations were broader and deeper than in modern man."

III. *Criminology.* Ferriani's (5) recent book on "Precocious and senile crime" contains an acute psychological study of the precocious criminal. The regeneration of the child and the youth is to be accomplished through education. In the precocious delinquent atavism, morbose heredity, and family degeneration have all a distinct share. To-day the organic dispositions of the individual, the influences of the environment, etc., prepare, aid, and exaggerate existing criminal tendencies. The unholy alliance of the young and the old in crime is one of the saddest phenomena of present-day culture. In the "science of prevention" lies the salvation of the society of the future.

IV. *Fatigue.* The latest study on fatigue by Dr. Bellei (2) is concerned with the results of an hour's consecutive work (simple arithmetical exercises) performed by boys (average age 11 years and 7 months) and girls (average age 11 years and 9 months) in the public schools of the city of Bologna. For the boys the test-hours were 9.45-

10.45 A. M., on Jan. 17 and June 11, and 1.45-2.45 P. M., on Jan. 21 and June 11; for the girls, 9.45-10.45 A. M., on Jan. 19 and June 9, and 2-3 P. M., on Jan. 16 and June 6. The chief results are:

1. There seems to be no rule as to the quantity of work produced during each quarter-hour.

2. The quality of the work becomes worse from the first to the last quarter-hour.

3. The work done by the pupils in an afternoon hour is less in quantity and worse in quality than that produced in a morning hour.

4. Both in the morning and in the afternoon, during the last days of school, the pupils produce, in an hour, a quantity of work almost always greater, but constantly worse in quality, than that obtained in an hour during the first months of instruction.

The maximum of errors, both generally and per pupil, occurred in the month of June.

V. *Feeble-minded.* Dr. Ugo Pizzoli (22), founder (in 1899) of the "Laboratory of Scientific Pedagogy" at Crevalcore (Bologna), published in 1902 a "Contribution to the anthropology of the feeble-minded," based on the examination of a hundred inmates of the Emilian Medico-Pedagogical Institute, with respect to stature, finger-reach, weight, cranial circumference, degenerative stigmati, etc. The stature of the feeble-minded is below that of normals, but the head-circumference is almost the same. In commenting upon this treatise, Dr. A. Mochi emphasizes the necessity of more extensive studies of normal individuals before setting up theories (as Dr.Pizzoli does not) about abnormal man.

VI. *Foot.* From a careful study of the outlines of the soles of the feet in 23 Italian degenerates and 87 native Africans of the Nyassa country, Dr. Giuffrida-Ruggeri (10) comes to the conclusion that the influence of boots and shoes in modifying the form of the foot has been exaggerated by most writers. In other words, "the common form of the European foot is not an artificial result, but a spontaneous product of evolution, belonging to the higher races."

VII. *Genius.* In his two recent volumes (15-16), "The origin and nature of geniuses," and "New studies on genius," Lombroso adds to the examples of his theory and also to his arguments in its favor. His category of geniuses still includes, besides the really great, many mediocre and even insignificant names. Quite recently his point of view has become somewhat broader and the skill with which he marshals arguments drawn from the consideration of the social and political facts of the culture of the prsent day, shows that his hand has not yet lost its cunning. His views upon the subject of the geniuses of primitive peoples, "artificially created," are of a like ingenious type. In his article (14) "Why criminals of genius have no type," he argues that "the type is often lacking because the lines of genius which belong to the greater evolutions of humanity tend to overshadow the hereditary traits of the criminal." Also, through "the prestige of genius" we may fail to see the type." Things deeply hidden in the brain, may not be revealed by the face. In another article (13), "Puberty in men of genius," Lombroso sets forth the thesis that the orientation and fixation of the individual as a genius occur through "a strong emotion at the time of puberty." Beauty, love, religion, etc., have such a rôle. From a study of the distribution in Italy of individuals of a high order of intelligence Dr. Giuffrida-Ruggeri comes to the conclusion that "anthropogeography is of less account than historical factors,—these are the really dominant elements." The rôle of race has, he thinks, been much exaggerated. It will be remembered that Boas, the anthropologist, assigns to "historical inci-

dent" an important place in the growth and perpetuation of the highest forms of human civilization.

VIII. *Giantism.* In the Anatomical Institute of Turin is preserved the skeleton of Giacomo Borghello (of Carrega), known as "the Piedmontese giant," "the Ligurian giant," etc. G. B. Traschio (25) has made a careful study of these bones, and, in his noteworthy article, gives many anthropometric details and descriptive facts, besides useful comparative data as to other giants. Traschio concludes that Borghello was "a real giant," whose extraordinary development dated from his fourteenth year. Some of the skeletal measurements were: Stature 2,100 mm. (the body, previously measured by Demichelis, gave 2,160 mm.), cranial capacity 1,910 ccm. (not large considering the stature), cephalic index 80. Borghello's father had a stature of 1,630 mm., his mother was 1,970 mm. tall; and, at the age of 14, one of his brothers measured 1,800 mm. Borghello died at the early age of 19 years.

IX. *Inbreeding.* In his work on "Consanguine Heredity," Dr. G. Portigliotti (23) sums up, with a good bibliography, the scientific opinion of the day concerning the intermarriage of near relations. The old idea that consanguineous unions were *per se* dangerous and harmful has give way to the saner view that only where morbose heredity exists is such the case,—otherwise, the union of thoroughly healthy consanguines is even preferable, a certain degree of resemblance having as a result the reinvigoration of the regular type. Portigliotti's book is highly praised by Professor Morselli, and the ground it covers makes it a valuable addition to the literature of the subject.

X. *Italia "barbara."* Six years ago Niceforo published a work entitled *L'Italia barbara contemporanea* (Palermo, 1898), in which he declared southern Italy to possess a racially degenerate population. Of Sardinia he observed in particular: "It would be difficult to find in any series of skulls from any region of any country whatever the number of degenerations to be found in a series of Sardinian crania." Dr. E. Ardu Onnis (1), well known through his studies of Sardinian anthropology, in his discussion of "Physical anomalies and degeneration in 'barbarous' Italy of to-day," produces statistics of measurements, proportion of anomalies, "degenerative stigmata," etc., to disprove Niceforo's theory of physical degeneration and race inferiority. He shows that in the Sardinian skull there are no real signs of "a degenerative process." Nor do the statistics of disease, lunacy, alcoholism, deaf-mutism, etc., bear out the Niceforan doctrine. There is much truth in what Mantegazza has said of the Sardinians: "Hitherto, by reason of their isolation for centuries, through fault of place rather than fault of men, they have contributed little to the glorious history of Italian civilization. They *are a young people and not a decrepid one.* They have a poor past, but a rich future. To social labor, to the common country they will bring two treasures, one more precious than the other,—*an excellent constitution*, not yet conquered by malaria; and *a sound fund of morality* the product of long centuries of impunity." The difficulty various authorities have in passing judgment upon the population of southern Italy should warn us against hasty decisions as to the "degeneration" of the individual among ourselves. An individual who is simply "young" can be endowed with statistical "degeneration;" and the same thing is true of a race or a people. Dr. Ardu Onnis rightly protests against the exaggerated idea of "urban civilization." He likewise expresses doubt as to whether or not there exists in man, any more than in the dog or the horse, a hierarchical seriation of races or varieties. It may be that, in his much-discussed book on "The decadency of the Latin nations," Pro-

fessor Sergi (24) has much overshot the mark, and that those are right who see for Italy in general a glorious renaissance at no very distant epoch in the future.

XI. *Jargons.* In an interesting article on "Jargons in the light of comparative ethnography," Dr. Giuffrida-Ruggeri (9) argues that the jargons and slang of criminals have the same defensive, mystical origins as have similar linguistic phenomena among normal people. Harvesters, elephant-hunters, camphor-seekers, tin-miners, fishermen, etc., in various parts of the world, have recourse to secret languages, jargons, slang and the like, as a defense against spirits and other untoward things, as a means of communication with them, etc. The general use, then, of jargons and secret languages, is as a means of survival. The facts of childhood also belong here.

XII. *Man and Woman.* Dr. Giuffrida-Ruggeri (7) discusses the question of "infantilism" and the origins of the varieties of man. Contrary to Havelock Ellis and others, the Italian anthropologist holds that the so-called "infantilism" of woman is a chimæra,—she is really, in somatic character, "less primitive and conservative and more variable than man." The so-called "female deficit" (in brain-weight), Giuffrida-Ruggeri, with Topinard and Manouvrier, attributes to the less active life of woman. In the higher races of man the fixation of physical characters is of comparatively recent origin. Notwithstanding invariability of cranial form, these "races" are relatively young, being really species in process of formation. In another article (8) Dr. Giuffrida-Ruggeri, on the basis of the examination of 55 male and 55 female bodies of Bolognese, that woman is more variable than man, or, to phrase it otherwise, has "a greater plasticity," which is for her a decided advantage.

In a third paper (12), the same author criticises, as unwarranted by the facts in the case, the idea set forth in Richard's recent book, *L' idée d'évolution* (Paris, 1903), that woman's "arrested mental development" has its origins in gestation.

XIII. *Mental and Physical.* Dr. A. Mochi (19), in his study "On the relations between intellectual development and cranial morphology," reaches the conclusions that "the relations between cranial morphology and intelligence are not so intimate that, outside of a few exceptional cases, we can make a certain diagnosis of the one from the other," and in the present state of science "we can only affirm with all safety that when the dimensions of the brain-case descend below a certain limit (microcephaly) intelligence also is lowered." The absolute size of the encephalon and, hence, of the skull depending on the variations of the active mass of the body, as well as upon intellectual development, it may be said that "the degree of intellectual elevation is represented by the relation of the encephalic mass with the active mass of the body, rather than by the absolute development of the former. The bonds between the dimensions of the encephalon, or of the brain-case, and intelligence are by no means so close that variations of one are represented faithfully by variations of the other. It is a scientific Utopia to hope to read in the skull the secrets of the psyche. From the human skull we shall learn more about the ancestry of the race than about the intellect of the individual. Micropsyche is, however, often to be inferred on the lower ranges of craniology; but not so easily, if at all, macropsyche on the higher. The character of an idiot may be inferred from a microcephalic skull, but it is as difficult as ever to distinguish with certainty the cranium of a fool from that of a philosopher.

XIV. *Microcephaly.* G. Paravicini (20), of the Mombello Lunatic Hospital has described in Carlotta C., "a classical case of idiocy, mi-

crocephaly and epilepsy." The scalp presented certain curious folds, which the author, contrary to the view of Amadei, who attributes them to elephantiasis, considers degenerative stigmata of man and seeks for their analogues in the anthropoids. Dr. Paravicini (21), also describes the crania of a nine years old microcephalic girl (stature 1.12 m., cranial capacity 42.4 ccm., cephalic index 71.4). In his explanation of the causes of microcephaly, he assigns to heredity an important rôle. The principal cause in the case under discussion, was, he thinks, an old and complete synostosis of the sagittal suture. In cases where all the sutures remain open, the cause of microcephaly must be sought in arrested development of the brain itself.

XV. *Race and individual.* Professor Paolo Mantegazza's (18) "Outlines of positive psychology" contains many data and arguments concerning the mind of the individual and of the race, of the child and of primitive peoples. In the individual and the race Mantegazza recognizes five great stages or periods in the psychic hierarchy, corresponding to the five stages through which European man, taken as a type, has evolved. These are as follows:

1. *Anthropomorphic stage.* Earliest infancy. Simplest animal needs, ferocity, automatic repetition of few sounds. Violent anger rapidly alternating with active joy. This stage is common to all the races.

2. *Child-stage.* Language poor in words; great thoughtlessness; very little esthetic feeling; no religious feeling. Continuous motility; great tendency to theft, lying; very little aptitude for industries and arts; no idea of property. The Australians, Mincopies, Hottentots, Mocovis (of South America) are in this stage. The drawings of an intelligent Italian boy (with no special aptitude for drawing) were found to be identical with those of an adult Hottentot.

3. *Adolescent-stage.* Language richer. Dawn of esthetic feeling. Great joyfulness. Levity, tendency to theft, and lying. Imagination and memory very great. Many negroes and almost all South American Indians are in this stage. The themes or compositions of the adolescent and the poetical productions of savages strikingly resemble each other in many respects; are, indeed, almost identical.

4. *Youthful stage.* Imagination and the passions extraordinarily dominant. Tendency to more tyrannical (democratic or aristocratic). Highest product of thought is almost always poetry. Mechanic arts well developed. Reflexion weak. The Chinese, Japanese, and, generally, all the peoples of Asia, are in this stage. This is a stage through which, in the first periods of their civilization the oldest peoples pass, and for some of them it is perpetual, and to it retrogress great peoples, like the Arabs, Greeks, etc., in their decadency.

5. *Adult stage.* The highest stage of the psychic hierarchy, reached by a people after having traversed, more or less rapidly, all the others. The precious qualities of the lower stages are not lost, but others are added to them. Neither poetry nor vivacity is dead, but to them are added also political wisdom, a high development of esthetic feeling and of the ideal and all the powers of thought reaching their maximum evolution give to man an infinite perfectibility.

XVI. *School-excursions.* A warm defense of "school-excursions," and the *régime* of "free air" education is made by Cannone (3), in his treatise on "School-excursions and their educative influence." They are of great physical, mental, moral and esthetic benefit. The substitution of real things for the artificialities of the schoolroom and the dead objects of the museum cannot be without suggestion and educative power. To exercise the mind in the open air is as needful as to so exercise the body. Long stays in the schoolroom may injure the

mind just as long stays in the closed gymnasium may hurt the body. "Out in the open is good for soul and body."

XVIII. *Stature.* Dr. G. De' Rossi (4), after a very careful study of the measurements of Italian conscripts born during the years 1854-1878, reaches the conclusion that the figures indicate a continuous and positive increase in stature, This increase in height, is, he thinks, "not a real augmentation of the *final stature* of the Italians, but an effect of *more precocious physical development.*" This has resulted, in all probability, from improved hygienic conditions and the tendency of social capital to become more precociously fruitful.

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CHILD STUDY AND RELATED TOPICS IN RECENT RUSSIAN SCIENTIFIC LITERATURE.

By Alexander F. Chamberlain.

The contributions of Russia to the literature of anthropology and cognate branches of science are numerous and many of them valuable. Owing, however, to a general lack of acquaintance with the Russian language on the part of the English-speaking world, knowledge of their extent and variety, to say nothing of details, is naturally very limited. Here, little more can be done than to call attention to some of the most important of these works in a general way and indicate where abstracts in other languages may be found.

I. *Brain-conformation.* From the study of 40 male and 40 female brain-hemispheres belonging to the first half year of extra-uterine life, besides 10 hemispheres of fetuses (6-9 mos.), 12 hemispheres of children (6 mos.-8 years), and 10 hemispheres of adults of both sexes, Fischer (5) comes to the conclusion that the development of the sulci and convolutions, contrary to the idea generally entertained, does not end with the fifth week after birth, but continues to the end of the first half year. Moreover, he thinks also, it is probable that finer conformations of the cerebral surface may take place even after the first half-year and, generally, during the whole period of brain-growth.

II. *Brain-cortex.* Mashtakov (10) has studied carefully the cerebral cortex in two human fœtuses (6th and 9th month) and fourteen children (up to the eleventh year) comparing the results with those from adult brains. By the age of 2½ years the cortex of the child's brain shows in general the essential peculiarities of structure of the adult cerebral cortex. The medullation of the nerve-fibers is, however, not noticeable before the fourth day of life, not occurring in the fœtal cortex. In so far as the nerve-cells are concerned, the formation of the cortex is almost complete by the twentieth month of child-life, these cells afterwards increasing only in size, but not changing essentially their earlier structure. At the beginning of the second half of the period of intra-uterine life, two layers are already distinctly marked in the human cortex. Altogether, the early appearance of the essential elements of the cortex is noteworthy.

II*a*. *Continuance of growth.* Talko-Hryncewicz (16), who has studied on the spot several of the native tribes of Central Asia, shows that with the Tunguses, Chalchas and Buriats of the Sibiric (Mongolian) stock, growth in stature continues beyond the twentieth year, and is not, therefore, so soon completed as many writers about primitive races have concluded. The same thing has been recently reported of some other primitive tribes, although specific data are not always forthcoming. This is but one case in which revision of earlier dogmatic assertions regarding the physical characters of savage and barbarous peoples has been necessary.

III. *Ear.* Vorobiev's (18) exhaustive study of the external human ear leads to the conclusion that, as the stature increases, the size of this organ relatively decreases. The ear of the child is disproportionately large, and in childhood the "Satyrhöcker" is five times

as frequent as in adult age. So-called "degenerative" ear-forms are largely embryonal (arrested) forms. Woman's ear is absolutely smaller, but relatively larger than man's.

IV. *Eye-growth.* The careful investigations of Baratz (1) on the eye of young infants show that towards the end of the fourth week of extra-uterine life the peculiarities of form belonging to earlier stages disappear to give place to permanent characters. The greatest intensity of growth is attained by the eye during the first year. Anatomically, the late fœtal eye and the eye of the new-born possess already, as compared with adult conditions, a characteristic stamp. Many interesting details are given in this monograph.

V. *Fertility.* Inossov (8) has studied the statistics of multiple-births in 50 governments of Russia during the period 1882-1891, embracing a total of over 8,000,000 births. In Russia it would appear that 2.4% of all births are multiple, and that multiple births of females somewhat exceed those of males. Race-influence may be seen in the fact that the proportion among the Jews is 2.64%, and among the Esths and Letts 3.2%. It is highest among the Finns, the Slavs taking a middle place. That multiple births are on the increase in Russia is shown by comparing the figures for 1882-1886 with those for 1887-1891, which reveal a notable increment of twins and triplets. Inossov sees in this increase a sign of race-degeneration, marked increase of this sort being one of the first signs of decadence.

VI. *Giantism.* Gikkel (6) describes two cases of partial giantism in children. The first, in a perfectly normally constituted child of two years, consisted in the gigantic size of the second toe on the left foot, caused by fat-hypertrophy. The other occurred in a ten-year-old boy, whose whole right leg (especially the foot) was of giant size, but here the bones had been also affected. Weinberg (19) discusses two cases of polysarcia in children eight years and three months, and six years and ten months old respectively. The statures were 1,356 and 1,232 mm., the weights 198 and 160 pounds. Illustrations of the subjects are given and detailed descriptions.

VII. *Growth.* Bondyrev's (3) extensive anthropological study of some 2,000 children, including 500 in the first year of life, is a very valuable contribution to the literature of child study. Stature and weight, head, trunk, thorax, extremities are given special treatment and a good bibliography is appended. Many of the conclusions of earlier observers are confirmed, *e. g.*, the increase in the circumference of the head during the first year decreases with each quarter. But while the energy of growth of the length of the head remains constant during the whole of the first year, that of the breadth of the head decreases notably in the second half of the year. During the 13-14th year in boys and 13-15th year in girls an increase in the rate of growth of the head occurs. In relation to chest-growth, the rate of growth of the head decreases, except that during the first year the relation between chest-girth and head-circumference is somewhat constant. The relation of head-circumference to height-sitting (length of trunk) tends to increase up to the ninth month of life, then begins to fall; in the third year it reaches in both sexes, the proportion present at birth, then sinks again. Bondyrev found racial differences and also variations due to social and national relations,—*e. g.*, the children of the lower classes of the population seemed to possess head-circumferences smaller than those of the well-to-do, etc.

VIII. *Heart.* Falk (4) examined 200 hearts, of various ages from the seventh fœtal month to the seventeenth year of life, and found that the length grows faster than the breadth or the thickness. Up to the twelfth year the dimensions of the heart are larger in boys than in

girls, but from the 12th to the 15th year the heart grows more with girls.

IX. *Heredity.* Orchansky's (14) new volume is chiefly an extension of his early work on healthy and morbid heredity, published in 1894 in French. Orchansky holds the view that "the evolution-stimuli remain, during the whole life of the individual, in a latent condition in the germ-cells, and that these cells, simultaneously with embryonal and individual evolution, undergo in parallel fashion corresponding changes in latent form,—or, in other words, go through a latent evolution. According to this hypothesis: There exists in every moment of individual evolution a *correlation* or consensus between the two kinds of cells in the organism—somatic and germ-cells. To the real condition of the whole organism at every moment of its evolution corresponds a like condition of the latent life in the germ-cells, quite irrespective of the fact of any direct connection or mutual effect existing between the somatic cells and the germ cells. Orchansky seeks to find in the experiments of Gaule support for his "correlation-theory." According to him "correlation," is of an evolutional and synthetic character and serves chiefly to maintain stability of type.

X. *Idiocy.* Morosov's (13) "Anthropological, etiological and psychological Study of Idiocy" contains much information concerning the anthropological characters of Russian idiots. In general, the author finds inferior stature and weight of body, narrow-chest, etc., and other signs of defective bodily development very prevalent. The constitution of trunks and extremities present often the conditions of childhood. Disturbances of the proportions of the various members and parts of the body are also common,—excessively long trunk, disharmonic relations of arms and legs. The head-circumference is not only smaller than with healthy individuals of the same age, but smaller even than with normal individuals still younger. The preponderating brachycephalism of Russian idiots is, as Weinberg observes, not surprising considering the brachycephalism of the modern Slavs. It may be, however, that idiocy comes with it here an increase of brachycephaly. Prognathism and a high ear-index preponderate. A few cases of "Mongol type" are noted by the author, who also finds some degenerative stigmata and "pithecoid" forms. The evidences of defective and retarded bodily development seem to occur in the most diverse forms of idiocy.

XI. *Microcephaly.* The study of the brain of a seventeen-year-old microcephalic idiot by Bechterev and Shukorski (2) is of considerable interest in connection with theories as to the origin of microcephaly. The brain-weight was 420 gr., and the brain itself showed marked reduction in the frontal lobes. The convolutions were remarkably simple, and the island of Reil and some of the convolutions (particularly the *Gyrus frontalis secundus* were defective in their development. The *corpus collosum* was lacking. The case seems to be one of clear arrest of development or "pure microcephaly," since pathological changes were not present. The arrest probably occurred in the fourth or fifth month of intra-uterine life, and the disturbance of development was the primary fact, not cranial alterations,—obliterations of sutures are lacking. These facts cause the authors to reject Virchow's theory of the origin of microcephaly.

XII. *Precocious development.* Rosanov (15) describes two interesting cases of precocious development. The first is that of a nine-year-old girl, menstruating at the twelfth month, pubes and mamma well developed. The other that of a seven-year-old boy, measuring 1,517 mm., and weighing 140 lbs. His sexual apparatus is fully developed and he has all his permanent teeth. He is able to lift up his mother without effort.

VIII. *Puberty.* The great work of Prince Viasemsky (17) on "the

modifications of the human organism during the pubertal period" is based on the observation of 4,872 children between 10 and 20 years of age in the schools of St Petersburg. According to Viasemsky the pre-pubertal condition of the organism is one which demands a slowing up of physical and intellectual work,—the onset of puberty is also marked by a diminution of good conduct. Reduction to a minimum of the curricula for boys of 14-16 years and for girls of 12-14 is desirable, while the age of 18 years is a weak spot in the human organism, the growth energies needing at that time rest and restoration. Blonde individuals seem to have a longer period of evolution of the organism than brunettes, and "good" pupils a more regular one than "bad." It is only after the pubertal period that the true physical and intellectual type of man acquires his traits.

XIV. *Seasonal Growth.* The investigations of P. D. Jenjko (9) concerning the seasonal influence upon the body-growth of girls belonging to the Alexander Institution at St. Petersburg, cover a period of nine years (1893-1902). To a winter decrease in weight corresponds a summer increase, but the influence of holidays has to be considered. A yearly increase of body weight up to the 13th year is noticeable, after that a tendency to decline. From the 9th to the 19th years the yearly winter-increase in weight decreases, ultimately disappearing. The summer increase in weight, however, increases yearly. In the early years the stature increases more in winter than in summer, later on the conditions are reversed. In St. Petersburg, the average annual increase in height, up to the 13th year, is about 5 or 6 cm., but after that a noticeable decline occurs. In the relation of the body-weight to the cube of the stature a winter increase and a summer decrease prevails up to the 12th year; during the 13th year it increases throughout; later on a summer increase and a winter decrease is more and more apparent. The explanation of these seasonal influences is not yet at hand.

XV. *Still-born.* The official statistics of St. Petersburg for 1881-1890 have been studied by Wykljukov (20), with the object of discovering the relations of intra-uterine to extra-uterine death, the former being only a special form of child-mortality, hitherto much neglected, particularly in Russia. The proportion of still-born in St. Petersburg is 4.1% of all births, 3.89% of all single births and 5.2% of all multiple births. The rate among illegitimates, 4.58% is greater than among children born in wedlock, 3.94%; greater for boys, 4.54% than girls, 3.64%. According to race, etc., the order of greatest proportion of still-born is Lutherans, Jews, Catholics, Orthodox, Mohammedans. The still-born occur most frequently in winter (particularly December), and least in summer (June). The poorer classes furnish more still-born than the well-to-do. The probability of a still-birth increases with the age of the mother.

XVI. *Suicide.* The statistics given by Gordon (7) indicate the increase throughout the civilized world of child-suicide. The period of greatest incidence is from the twelfth to the fourteenth year. About 40% of the suicides of children are occasioned by ill-treatment at the hands of teachers, masters, employers, parents, etc.; 25-30% by hereditary taint, alcoholism in particular; 10% by poverty and material traits, especially among the working classes and factory population.

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LITERATURE.

L'éducation des nègres aux États-Unis, par KATE BROUSSEAU. Felix Alcan, Paris, 1904. pp. 396.

This noteworthy volume on the education of the negro in the United States was accepted as a doctor's thesis by the faculty of the University of Paris, with honorable mention. Dr. Kate Brousseau, the author, has been for a number of years professor in the State Normal School at Los Angeles, California. The work is comprehensive and written with special reference to the information of the French mind on the character and progress of the education of the colored race in America.

The first chapter deals with the negro question before the civil war, and it presents in clear and concise form the mental condition of the negro race under slavery. The second chapter treats of the organization of schools for colored youth before the war of secession—and notably in the District of Columbia—and the feeble beginnings in industrial training. The third chapter treats of the education of the negro during the period of reconstruction; the fourth chapter of the negro character; the fifth chapter of the education of negro children in state schools; the sixth chapter of the professional education of the negro; and the seventh chapter of the liberal education of the negro. There is appended a most exhaustive bibliography touching every phase of the negro problem.

Dr. Brousseau aptly characterizes the educational condition of the 1,800,000 negro children of school age as in a condition of obligatory ignorance. In spite of numerous efforts to provide education for colored youth in Northern States, she notes that at the beginning of the civil war, 95% of the negroes could not read and write. She reviews in great detail the machinery organized for the education of negro children after the slaves had been freed—the work of the Freedmen's Bureau, the American Missionary Association, as well as state and city measures.

Several interesting problems are discussed in the chapter on the character of the negro. The appalling death rate among the black people is pointed out and the need of judicious physical training suggested. With reference to moral development, the author admits that progress is slow but she is convinced that immorality is on the decrease. The decrease in crime is slow because of abnormal urban labor conditions. With reference to the reputed dishonesty of the negro people, she asserts that the vice is the outgrowth of slavery and she points out that the negro must learn the use of property before he can understand the moral worth of honesty.

The well-known educational institutions for the colored people are all reviewed and the progress of the black race is at all points correlated with education. If the black race is to escape the crushing misery of to-day, remarks Dr. Brousseau, its members must be skilled in the different industries so as to be necessary factors in the progress of the nation. "The salvation of the black people depends upon the influence of their cultivated men and women." But Dr. Brousseau is of the opinion that the best educational work for the blacks is being done

by their own race; and she calls attention to the fact that negro teachers inspire in their black pupils a sense of self-respect and personal dignity at all points superior to white teachers.

The tone of the work throughout is judicial and the wide range of topics gives the work large value. An English translation should be welcomed by the American educational public. WILL S. MONROE.

Fourth school year; a course of study with detailed selection of lesson material arranged by months and correlated, by ANNA BUCKBEE. A. Flanagan Co., Chicago, 1904. pp. 241.

It speaks well for the professional scholarship of the faculty of the State Normal School of California, Penn'a, that it has had the foresight and the energy to plan a series of teachers' manuals along distinctly new lines and that already the fourth book of the series has appeared. The present volume by Professor Anna Buckbee is a suggestive outline of suitable topics for teachers of children from nine to ten years old. Three principles have actuated the author in the preparation of her book: (1) the capacity of the child to do the work; (2) his interest in the material suggested; (3) his mental needs in the later life and larger experience. It is apparent that these principles have been consistently worked out in the scheme of correlation which forms the basis of the series.

The suggested material is nature study, geography, history, literature, arithmetic, language and "the arts" and the months of the year form the basis of correlation. The local concept is rightfully made the point of departure; and in history, geography, and nature study it is worked out with rare pedagogic skill. Professor Buckbee has applied the maxim of Humboldt that "every school ground is a world in miniature;" and she finds in the child's world a wealth of teaching material which she has selected and skillfully correlated for the use of young teachers. The book is a distinct contribution to the literature of methods of instruction in elementary schools.

WILL S. MONROE.

General Report of the Census of India, 1901. Darling & Son, London, 1904. pp. 582.

Besides figures on distribution, movement of population, sex, infirmities, education, occupation, age, etc., this report contains very interesting sections on language, religion, marriage and caste. In India as a whole there are only 963 females to 1,000 males. The proportion of the former is steadily rising. There is greater mortality among females, especially early in life. Moreover, the concealment of females has been a motive among the ignorant classes who have not understood the motives of the census. For these data and even those on diseases have had to be collected, like questionnaire returns, from the ignorant classes. Of the total population one male in every ten and one female in every 144 can read and write. Under ten only 13 males in a thousand are returned as literate, and at twenty, 139. The best educated class are the Parsees nearly two-thirds of whom can read and write, or three-quarters of the males and half the females. The next are the Jains with 47% of the males and 2% of the females; then the Buddhists, 40% males and 4% females. The latter are found chiefly in Burma. The Christians come next, males 29%, females 13%. The Sikhs have 98 literate males and 7 literate females per thousand of each sex, which is the same as India taken as a whole. The Mohammedans are lower than the average, and at the bottom come the animistic tribes, with 8% of the males and practically no females. The seclusion of girls at puberty prevents their schooling. In some provinces the great distance of the schools, averaging from four to seven miles, is a bar.

There are no less than 147 distinct languages, vernacular, in the Indian empire. Nowhere is the unholy alliance which bases ethnology upon linguistics more misleading. All these languages are classed into seven larger divisions.

"There are languages whose phonetic rules prohibit the existence of more than a few hundred words, which cannot express what are to us the commonest and most simple ideas; and there are others with opulent vocabularies, rivalling English in their copiousness and in their accuracy of idea-connotation. There are languages every word of which must be a monosyllable, and there are others with words in which syllable is piled on syllable, till the whole is almost a sentence in itself. There are languages which know neither noun nor verb, and whose only grammatical feature is syntax; and there are others with grammatical systems as complete and as systematically worked out as those of Greek and Latin. There are languages with a long historical past reaching over thirty centuries; and there are others with no tradition whatever of the past. There are the rude languages of the naked savages of Eastern Assam, which have never yet been reduced to writing, and there are languages with great literatures adorned by illustrious poets and containing some of the most elevated deistic sentiments which have found utterance in the East. There are languages, capable in themselves of expressing every idea, which are nevertheless burdened with an artificial vocabulary borrowed from a form of speech which has been dead for two thousand years, and there are others, equally capable, that disdain such fantastic crutches, and every sentence of which breathes the reek of the smoke from the homesteads of the sturdy peasantry that utters it. There are parts of India that recall the plain in the land of Shinar where the tower of old was built, and in which almost each of the many mountains has its own language, and there are great plains, thousands and tens of thousands of miles in area, over which one language is spoken from end to end."

The chapter on religions begins with a scholarly account of animism, fetichism, and Shamanism, with an admirable criticism of each in which it is plainly shown that many of the conceptions now quite current about not only these forms of primitive religion but the ghost theory, ancestor worship, etc., are not valid without radical changes for India. Best of all, perhaps, is the discussion of Pantheism, Karma, metempsychosis, and the various sects, even the Sikhs, the Wahabis, etc. Of all the nearly three hundred million population, only 2,664,000 are even nominally Christian, Of these two-fifths are Roman Catholics, 2½% Methodists, 1½% Presbyterians. The report says, "The classes most receptive of Christianity are those who are outside the Hindu system or whom Hinduism regards as degraded. Among the higher Hindu castes there are serious obstacles in the way of conversion. By accepting Christianity a man at once cuts himself off from his old associates and is regarded even by his own family as an outcast." "Converts," says Mr. Francis, "are recruited almost entirely from the classes of Hindus which are lowest in the social scale."

In no department of life is the contrast sharper between the East and the West than with regard to marriage. The Hindu man must marry and beget children in order to perform his funeral rites, lest his spirit wander, and if a Hindu maiden is unmarried at puberty her condition brings social obloquy on her family. The laws of endogamy, exogamy, and hypergamy, which are very intricate as expressed in different castes, are explained in great detail.

The last section is devoted to caste, tribe and race, a matter on which the author sums up the many different opinions to date without adding very much. Modern conditions are bringing a more rigid obser-

vance of caste so far as marriage is concerned, but greater laxity as to the injunctions about food and drink. Past censuses have enumerated 2,300 castes and tribes. The relations between these and the totemic septs, each bearing the name of some animal, tree, or plant which they must not injure, are hard to trace. In Australia the religious, and in India the social, side of totemism is predominant. In India the chief relic of totemism is the rule that a man must not marry a woman of his own totem. The benefit of this is very great. In the classification of these social groups, this census takes a great step in advance by consulting local opinion with regard to all matters pertaining to each caste, tribe, and race.

In Famine Land, by J. E. Scott. Harper & Bros., New York, 1904. pp. 206.

This author has spent most of his life in India and devoted himself to relief work in the late famine which seems to have extended over more than half of India. He first gives a brief history of famines, describes the life of the twenty-five or fifty million people who live near the border-land of starvation. More than forty millions, he thinks, habitually have insufficient food. They are the most patient people in the world. He quotes Mr. Dutt, who declares that "India maintains the most expensive foreign government on earth, and one-third or one-half of the net revenues of India is sent out of India every year instead of being spent in the country to fructify her industries and trade. Land revenue is the most important item of the Indian revenues, and so it happens that the taxation falls heavily on the cultivators of the soil, and reduces them to a state of chronic poverty. They can save nothing in years of good harvest and consequently every year of drouth is a year of famine." These evils he would cure by reducing the tax, public debt, and expenditure of India, constructing irrigation works, etc.

Dr. Scott's book is shocking enough with its many portraits of dead pits, funeral piles, corpses, dying men and women, and its descriptions of the smell of putrid and burning bodies, and famine-stricken, starving families and groups of men, women, children and even animals, the heaps of bones afterwards gathered together, photograph of a dying boy partly eaten by jackals, but rescued, cremation scenes, etc. While the author adds very many harrowing details, his general discussion of the whole topic and its larger relations is not very satisfactory or comprehensive.

In the Uttermost East, by Charles H. Hawes. Charles Scribner's Sons, New York, 1904. pp. 478.

This writer penetrated to the Island of Sakhalin in the very northeast of Siberia, and gives us a very interesting account of his journey. It is here that the worst of the Russian exiles and prisoners are sent, and here, perhaps, the severities of the Russian method are greatest. These the author freely describes with striking detail, but on the whole appears to think that the Russian penal system is by no means so bad as it has been painted. He says (page 388), "The Russian penal system so far as it deals with criminals compares, on the whole, not unfavorably with the regulations for the punishment and incarceration of delinquents adopted by other European nations." A prisoner may be promoted from class to class and gain freedom ultimately. The defects are that the law is not always fully enforced, and the Russian chaplain is often not only ineffective but inferior. This author has given us the fullest description we have of the Gilyaks and the Orochons, their religion, their mode of life, and conceptions of the universe. While not in the least disposed to doubt any of the author's state-

ments, it seems surprising at this distance that in so short a visit he should have acquired so much knowledge of these taciturn races, been so successful in exploring their ideas of the world; and that he should have come into such intimate knowledge of the Russian prison system and been allowed to photograph so many murderers in chains, an executioner with his whip, in the act of inflicting punishment, and got the confidence of so many prisoners to such a degree that they seem to have told him the entire history of all their misdeeds.

Education in Japan. Prepared for the Louisiana Purchase Exposition at St. Louis, 1904, by the Department of Education in Japan.

This volume is made up of nine pamphlets treating the history of Japanese education, its primary, secondary, superior, art, technical expressions, the education of defectives, libraries, museums, educational societies, teachers, institutes, textbooks, etc. The volume is copiously illustrated, mostly by photographs, and gives a picture of a development which is probably unsurpassed in the story of education, and is full not only of inspiration, but of suggestion.

Japan in the Beginning of the Twentieth Century. Published by the Imperial Japanese Commission to the Louisiana Purchase Exposition, 1904. pp. 828.

This volume describes modern Japan under such captions as geography, population, agriculture in its various departments, forestry, mining, metallurgy, fishery, manufactures of various kinds, foreign trade, financial system, army and navy, post and telegraph, railroads, shipping and education. It is a volume, of course, more intended for reference than for reading through, but it is certainly a masterpiece of condensed statement in those chapters we have considered.

The English People, by EMILE BOUTMY. Translated from the French by E. English. With an introduction by John Edward Courtney Bodley. G. P. Putnam's Sons, New York, 1904. pp. 332.

The first serious defect that strikes the reader of this work is that it has no chapter index. This seems to us nothing less than slovenly, whether it be due to the editor or to the printer. We learn the chapters and topics only by turning every page. The writer first discusses the physical environment and the will of the English people, then their perceptions, creative imagination, power of abstraction, ideas of the true, beautiful, and good, criticism, history, drama, and the novel, philosophy, science and religion. In the second part entitled "Human Environment," the Aliens, Germans, Anglo-Saxons, Celts, Danes, Normans, indigenous races are described. Agriculture, commerce, the colonies, Puritans, insularity, follow. In the third moral and social part, love, sympathy, pride, sincerity, unsociability, spirit of adventure, are characterized. As a politician the Englishman loves freedom and inequality of conditions, is prone both to tradition and innovation, is apt to be a party man, but to yield to pressure from without, is fond of royalty, but is highly individualized, loves family, party, class, etc.

An Abridged History of Greek Literature, by ALFRED CROISET and MAURICE CROISET. Authorized translation by George F. Heffelbower. The Macmillan Co., New York, 1904. pp. 569.

This is a great masterpiece somewhat abridged. We have no space to adequately characterize or describe it here. It begins at the beginning of the Greek poetry and ends with the last days of Hellenic literature. The very high position that this work has enjoyed from the very first will make this epitomized form of it extremely welcome.

Turkish Life in Town and Country, by LUCY M. J. GARNETT. G. P. Putnam's Sons, New York, 1904. pp. 336.

This interesting book treats of inhabitants, institutions, lands, dwellings, life in town, harem, country and at the yildiz kiosk, religious life and thought, monastic life, education and culture, nomad and brigand life, and a few of the nationalities. It has some fifteen full-page, photographic illustrations.

The Philippines and the Far East, by HOMER C. STUNTZ. Eaton & Mains, New York, 1904. pp. 514.

After eight years in British India and two in the Philippines, this writer attempts to set down things that American Christians and voters ought to know in shaping the policy of our nation, "furnishing the support for our missionary societies in the work God has appointed each to do among these people." Much space is given to purely political matters. Through the courtesy of Governor Taft the writer had access to all official sources of information. Some of the interesting chapters are the social order, historical summary, the friars and why they are hated, framing a policy, the Chinese in the Philippines, the religious situation, missionary beginnings, the Aglipay movement away from Catholicism.

Ordered to China. Letters of Wilbur J. Chamberlin. Frederick A. Stokes Co., New York, 1903. pp. 340.

These letters were written from China by the author while under commission of the New York Sun during the Boxer uprising on the international complications that followed, beginning August 5th, 1900, and ending August 6th, 1901. The letters are chatty and personal, but often very interesting.

The Wild Northland, by GEN. SIR. WILLIAM FRANCIS BUTLER. A. S. Barnes & Co., New York, 1904. pp. 360.

This is one of the more interesting studies in the Wild Northland Series. The author set out from Manitoba in the fall with a very small party to traverse British America. As his trip was made in the seventies he found more primitive conditions than now prevail among them, even buffaloes. He had been disappointed in not conducting an African expedition and evidently the laurels of Stanley nettled him. His record, while interesting, is of the rather gossipy type, and he evidently had little conception of what a good writer well trained in geography and anthropology might make out of such a trip.

Readings in European History, by JAMES HARVEY ROBINSON. Vol. I. Ginn & Co., Boston, 1904. pp. 551.

It was a very happy idea to collect some standard historical literature to be used as a supplement to ancient and mediæval history. This takes the student directly to the sources, beginning with extracts from Seneca and Epictetus, the German invasion, the rise of the papacy, the monks, Charlemagne's feudalism, the Hohenstaufens, the Crusades, mediæval church, town and city, Italy and the Renaissance. These and other themes are made the centres for collection of the most important original documents.

Ancient History, by PHILIP VAN NESS MYERS. Ginn & Co., Boston, 1904. pp. 639.

This is a revised edition of a work in every way admirable. Its maps, cuts, judicious selection of material, its convenient indexes and natural divisions into chapters, and the general make-up of the book are perhaps almost all that could be desired.

The Ethical World-Conception of the Norse People, by ANDREW PETER FORS. University of Chicago Press, 1904. pp. 57.

This interesting dissertation is exceedingly comprehensive. It outlines first the mythological conceptions of the Norse people, then derives their world concepts from the songs, sagas, maxims, etc. From these we can deduce a general ethical, philosophical system, and the views of life in general. These are compared to Persian and other systems, and the influence of Christianity upon these ideals is treated in a summary way.

The Society of To-morrow: A forecast of its political and economic organization, by G. DE MOLINARI. Translated by P. H. Lee Warner. G. P. Putnam's Sons, New York, 1904. pp. 230.

In the first part of this book the state of war is discussed in primitive communities in ascendant and descendant states, while in the second part the state of peace is still more fully treated. The third part consists of notes on the Tsar and disarmament, trusts, colonization, cost of war, etc.

Argumentation and Debate, by CRAVEN LAYCOCK and ROBERT LEIGHTON SCALES. The Macmillan Co., New York, 1904. pp. 361.

Argumentation is here presented as a separate object of study, and is timely because of the increasing emphasis put upon the necessity for the proper method of presenting it. Formal logic, rhetoric, oratory, and the rules of court procedure all contribute to it. To know how to argue is as necessary for the business man and the scientist as for the lawyer. The work is presented under the general captions Invention, Selection, Arrangement, Presentation and Debate.

Bacon's Advancement of Learning. Book I. Edited with introduction and notes by Albert S. Cook. Ginn & Co., Boston, 1904. pp. lvii + 145.

Professor Cook is making this great work more accessible to those who do not read Latin by translating all the quotations from ancient tongues. This volume contains besides the text itself a brief account of Rawley's Life of Bacon, the events of his life and times, opinions concerning him, and two prayers of Bacon.

Machiavelli and the Modern State, by LOUIS DYER. Ginn & Co., Boston, 1904. pp. 163.

These three lectures, somewhat delayed and amplified from the date of their publication, present us with an admirable picture of the mind of Machiavelli. It would serve admirably as an introduction to every study of this man and his period.

In the Days of Chaucer, by TUDOR JENKS. With an introduction by Hamilton Wright Mabie. A. S. Barnes & Co., New York, 1904. pp. 302.

This is a valuable little book which should be in every school library where Chaucer is studied. It gives a very vivid picture of the man and his work and transports the reader to the England of his day.

House and Home. A practical Handbook on Home Management. By MARY ELIZABETH CARTER. A. S. Barnes & Co., New York, 1904. pp. 271.

This is a practical little book about choosing a house, moving, cleaning, furnishing, bed chambers, bath rooms, care of beds, servants' rooms, their rights and privileges, kitchen, cooking, training maids for table, children's place, nursing, etc.

The Courtesies. A Booklet of Etiquette for Every Day. By ELEANOR B. CLAPP. A. S. Barnes & Co., New York, 1904. pp. 234.

This convenient little book gives society rules about calling, visiting cards, invitations, afternoon teas, dances, dinner and card parties, customs about chaperon, etiquette for men, weddings and all their adjuncts, children's parties, good table form, etc.

Money, Banking and Finance, by ALBERT S. BOLLES. American Book Co., New York, 1903. pp. 336.

This book seems to be a capital summary of its subject and ought to be in the hands not only of every student, but of every one who has any practical interest in, or knowledge of, banking.

Infant Schools: Their History and Theory. By DAVID SALMON and WINIFRED HINDSHAW. Longmans, Green & Co., New York, 1904. pp. 324.

The story of the Infant School in England is peculiar and it is there still a unique institution. It began with Oberlin, Owen, Buchanan, Wilderspin and Stow, in whom the leaven of Pestalozzi had begun to work. The kindergarten movement developed upon this basis. The story of this growth occupies the first 128 pages of the book. The rest of it, or Part Second, is more psychological. It treats the beginnings of mental life, perception, instinct, habit, thinking and speaking, memory, imagination, personality, Froebel's theory, the extension of kindergarten methods with older children. The very few pages devoted to the support of the kindergarten in America hardly does justice to its theme, and the writer's acquaintance with the recent literature on childhood is exceedingly limited, and, one might say, insular. No doubt such treatment had its place and will do good, but the present state of our knowledge of children and of psychological topics not only permits, but invites us to go much further. It is possible that in England, as in this country, normal school work is destined to remain on the low plane where nothing is either very good or very bad.

Report on Secondary Education in Liverpool: including the Training of Teachers for Public Elementary Schools, by MICHAEL E. SADLER. Eyre & Spottiswoode, London, 1904. pp. 230.

This is in some respects an ideal document. It is a full report by an expert upon the state of secondary education in a great commercial city. A general survey of educational life, and especially as bearing upon secondary work, comes first; then, the causes of weakness touching funds, quality of teachers, the number who leave early, with wise recommendations for improvement. Perhaps the best recommendations are those on methods of improving the teaching of modern languages and postponing the curriculum of Latin till the twelfth year. Why could not American school boards employ an expert to make a free and frank investigation of various aspects of their educational systems and report in this way?

School Civics, by FRANK DAVID BOYNTON. Ginn & Co., Boston, 1904. pp. 368 + xli.

This is a simple, handy little book of things most of which every intelligent citizen ought to know and, in fact, generally does know before he reaches the age of suffrage. A course based on such a text would bring some points of this knowledge a little earlier in life and would make them a little more impressive. The range of topics is enormous. School administration, the function of city government, treaties, war, contracts, divorce, crimes, are all described from a few lines to a few pages, and we are not convinced that thus taught, and

with all the pressure of other subjects, civics,—if this represents it,—has made good its claim to a place in the school curriculum.

Type Studies from the Geography of the United States. 1st series. By CHARLES A. MCMURRY. The Macmillan Co., New York, 1904. pp. 288.

To our mind these type studies are far too scattered. The student is asked to leap from the cod fisheries of Massachusetts to a coal mine; thence to the lower Mississippi, to cotton and sugar, a cattle ranch, and so on. Although this work is a great improvement upon the days of Frye, it is still, itself at least, as far from the right thing as from Frye in ways that have already been pointed out.

Correct Writing and Speaking, by MARY A. JORDAN. (The Woman's Home Library.) A. S. Barnes & Co., New York, 1904. pp. 252.

Miss Jordan has had large and long experience in teaching this subject, and the results of this experience appear to be embodied in this volume. The chapters are entitled: (1) The Standard; (2) The Spoken and the Written Word; (3) The Office of Criticism; (4) Speaking and Singing; (5) Prose and Poetry; (6) The Speller and the Copy Book; (7) Bad Grammar; (8) The Dictionary. A useful list of books is appended.

National Conference on Secondary Education and Its Problems, held at Northwestern University, October 30 and 31, 1903. Stenographic Report of the Proceedings, edited by V. K. Froula. Evanston, 1904. pp. 240.

This conference was called as an appropriate academic festival to a great leader. The plan of it was drawn up on a method which seems to have become necessary to our day, but which is not favorable for individuality in speakers. Five problems were selected and a number of well known educators were invited from all over the country to discuss each of them. They were, (1) The Present Place and Function of the Endowed Academy; (2) The True Function of the Free Public High School; (3) The Effects of Accrediting Schools by Universities Upon the Schools Themselves; (4) What the Public High School Can Do for Moral and Religious Training; (5) Defects: Too Many Women Teachers, Too Much Social Life and Too Much Imitation.

Government and the Citizen, by ROSCOE LEWIS ASHLEY. The Macmillan Co., New York, 1904. pp. 252.

This book first discusses the citizen's part in government, suffrage, elections, parties, financial support, protection of rights. The second part considers the state and the local government, and treats of protection of the public schools, charities, government of town, county, city and state, and business. The third part describes national government, the Constitution, Congress, the President, national courts, foreign affairs, money, post office, territories, colonies, public lands, and national development. This work is made still more attractive by two or three dozen illustrations in the form of photographic reproduction.

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